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

FORM 10-K

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

For fiscal year ended December 31, 2021

Commission File Number: 1-4018

Dover Corporation

(Exact name of registrant as specified in its charter)

Delaware 53-0257888

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

3005 Highland Parkway **Downers Grove, Illinois 60515**

(Address of principal executive offices)

Registrant's telephone number: (630) 541-1540

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value \$1	DOV	New York Stock Exchange
1.250% Notes due 2026	DOV 26	New York Stock Exchange
0.750% Notes due 2027	DOV 27	New York Stock Exchange

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

	None								
Indicate by check mark if the registrant is a well-known seasoned issuer, as	defined in Rule 405 of the Securities A	act. Yes ☑ No 0							
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 0 No 🗵									
Indicate by check mark whether the registrant (1) has filed all reports requiduring the preceding 12 months (or for such shorter period that the registra requirements for the past 90 days. Yes \square No 0	3	O O							
Indicate by check mark whether the registrant has submitted electronically Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months Yes \square No 0	1	1							
Indicate by check mark whether the registrant is a large accelerated filer, are growth company. See the definitions of "large accelerated filer," "accelerate Rule 12b-2 of the Exchange Act. (Check one):	· · · · · · · · · · · · · · · · · · ·	1 0							
Large accelerated filer	Non-accelerated filer o	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 0

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 by the registered public accounting firm that prepared or issued its audit report. Yes ☑ No o

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of the close of business on June 30, 2021 was \$21,609,554,242. The registrant's closing price as reported on the New York Stock Exchange-Composite Transactions for June 30, 2021 was \$150.60 per share. The number of outstanding shares of the registrant's common stock as of February 1, 2022 was 144,054,607.

Documents Incorporated by Reference: Part III — Certain Portions of the Proxy Statement for Annual Meeting of Shareholders to be held on May 6, 2022 (the "2022 Proxy Statement").

Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K, especially "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. All statements in this document other than statements of historical fact are statements that are, or could be deemed, "forward-looking" statements. Some of these statements may be indicated by words such as "may", "anticipate", "expect", believe", "intend", "continue", "guidance", "estimates", "suggest", "will", "plan", "should", "would", "could", "forecast" and other words and terms that use the future tense or have a similar meaning. Forward-looking statements are based on current expectations and are subject to numerous important risks, uncertainties, and assumptions, including those described in Item 1A, "Risk Factors" in this Annual Report on Form 10-K. Factors that could cause actual results to differ materially from current expectations include, among other things; the impacts of COVID-19 or other future pandemics on the global economy and on our customers, suppliers, employees, business and cash flows; supply chain constraints and labor shortages that could result in production stoppages, inflation in material input costs and increased transportation costs; other general economic conditions and conditions in the particular markets in which we operate; changes in customer demand and capital spending; competitive factors and pricing pressures; our ability to develop and launch new products in a cost-effective manner; changes in law, including the effect of tax laws and developments with respect to trade policy and tariffs; our ability to identify and complete acquisitions and integrate and realize synergies from newly acquired businesses; the impact of interest rate and currency exchange rate fluctuations; capital allocation plans and changes in those plans, including with respect to dividends, share repurchases, investments in research and development, capital expenditures and acquisitions; our ability to derive expected benefits from restructurings, productivity initiatives and other cost reduction actions; the impact of legal compliance risks and litigation, including with respect to product quality and safety, cybersecurity and privacy; and our ability to capture and protect intellectual property rights. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

In this Annual Report on Form 10-K, we refer to measures used by management to evaluate performance, including a number of financial measures that are not defined under accounting principles generally accepted in the United States of America ("GAAP"). We include reconciliations to provide more details on the use and derivation of these financial measures. Please see "Non-GAAP Disclosures" at the end of Item 7 for further detail.

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PART I

ITEM 1. BUSINESS

Overview

Dover Corporation is a diversified global manufacturer and solutions provider delivering innovative equipment and components, consumable supplies, aftermarket parts, software and digital solutions and support services through five operating segments: Engineered Products, Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions, and Climate & Sustainability Technologies. Unless the context indicates otherwise, references herein to "Dover," "the Company," and words such as "we," "us," or "our" include Dover Corporation and its consolidated subsidiaries. Dover was incorporated in 1947 in the State of Delaware and became a publicly traded company in 1955. Dover is headquartered in Downers Grove, Illinois and currently employs approximately 25,000 people worldwide.

Dover's five segments are structured around businesses with similar business models, go-to-market strategies and manufacturing practices. This structure enables management efficiency, aligns Dover's operations with its strategic initiatives and capital allocation priorities, and provides transparency about our performance to external stakeholders. We have changed the names of two of our segments (Fueling Solutions to Clean Energy & Fueling, and Refrigeration & Food Equipment to Climate & Sustainability Technologies) to reflect recent portfolio changes, as well as to better reflect markets and customers served as well as growth drivers of respective businesses in the two segments. Dover's five operating and reportable segments are as follows:

- Our Engineered Products segment provides a wide range of equipment, components, software, solutions and services vehicle aftermarket, waste handling, industrial automation, aerospace and defense, industrial winch and hoist, and fluid dispensing end-markets.
- Our Clean Energy & Fueling segment provides components, equipment, and software and service solutions enabling safe transport of traditional
 and clean fuels and other hazardous substances along the supply chain, as well as the safe and efficient operation of convenience retail, retail
 fueling and vehicle wash establishments.
- Our Imaging & Identification segment supplies precision marking and coding, product traceability and digital textile printing equipment, as well
 as related consumables, software and services to the global packaged and consumer goods, pharmaceutical, industrial manufacturing, fashion and
 apparel and other end-markets.
- Our Pumps & Process Solutions segment manufactures specialty pumps and flow meters, fluid connecting solutions, plastics and polymer
 processing equipment, and highly engineered precision components for rotating and reciprocating machines serving single-use biopharmaceutical
 production, diversified industrial manufacturing, polymer processing, midstream and downstream oil and gas and other end-markets.
- Our Climate & Sustainability Technologies segment is a provider of innovative and energy-efficient equipment and systems that serve the commercial refrigeration, heating and cooling and beverage container-making equipment markets.

COVID-19

For information related to the impact of the COVID-19 pandemic on our business see Item 7. Management's Discussion and Analysis in this Form 10-K.

Management Philosophy

Dover is committed to steadily creating shareholder value through a combination of sustained long-term profitable growth, operational excellence, superior free cash flow generation and productive capital re-deployment while adhering to a conservative financial policy. Dover seeks to be a leader in a diverse set of growing markets where customers are loyal to trusted partners and suppliers, and value product performance and differentiation driven by superior engineering, manufacturing precision, total solution development and excellent supply chain performance. Our businesses are long-time leaders in their respective markets and are known for their innovation, engineering capability and customer service excellence. We aim to continue growing our businesses from this strong foundation. Our operating structure of five business segments allows for differentiated acquisition focus consistent with our portfolio and capital allocation priorities. We believe our business segment structure, coupled with functional expertise at our lean corporate center, presents opportunities to identify and capture operating synergies, such as global sourcing and supply chain integration, shared services, and manufacturing practices, and further advances the development of our executive talent. Our executive management team sets strategic direction, initiatives and goals, provides oversight of strategy execution and achievement of these goals for our business segments, and with oversight from our Board of Directors, makes capital allocation decisions, including with respect to organic investment initiatives, major capital projects, acquisitions and the return of capital to our shareholders.

Our goal is to foster an operating culture with high ethical and performance standards that values accountability, rigor, trust, inclusion, respect and open communications, designed to allow individual growth and operational effectiveness. We are also increasing our focus on maintaining sustainable business practices that reduce environmental impact, and developing products that help our customers meet their sustainability goals.

Company Goals

We are committed to driving superior shareholder returns through three key tenets of our corporate strategy.

First, we are committed to achieving organic sales growth above that of gross domestic product (greater than GDP or 3% to 5% annually on average) over a long-term business cycle, absent prolonged adverse economic conditions, complemented by growth through strategic acquisitions.

Second, we continue to focus on improving returns on capital, as well as segment and corporate earnings margin by enhancing our operational capabilities and making investments across the organization in digital capabilities, automation, operations management, information technology ("IT"), shared services (including Dover Business Services and our India Innovation Center), and talent. We also focus on continuous, effective cost management and productivity initiatives, such as automation and digitally-supported manufacturing, supply chain optimization, e-commerce and digital go-to-market, restructuring, improved footprint utilization, strategic pricing and portfolio management.

Third, we aim to generate strong and growing free cash flow and earnings per share through strong earnings performance, productivity improvements and active working capital management. Dover prioritizes deploying free cash flow towards high-return and high-confidence organic reinvestments aimed at growing, improving and strengthening our businesses, as well as through inorganic investments that synergistically enhance the quality of our portfolio. Dover's value creation strategy is supported by a financial policy that includes a prudent approach to financial leverage, and a disciplined approach to capital allocation that allows for a balance between reinvestment and return of capital to shareholders through growing dividends and opportunistic share repurchases.

We support achievement of these goals by (1) aligning management compensation with strategic and financial objectives, (2) actively managing our portfolio to increase enterprise scale, improve business mix over time to markets with secular growth characteristics, and pursue acquisitions that fit the characteristics of an ideal Dover business and (3) investing in talent development programs.

Characteristics of a Dover Business

Our businesses generally operate in strategically attractive niche industrial markets with supportive long-term growth trends, favorable supply and demand landscapes, mature and incrementally improving technologies and highly loyal customers, suppliers or channel partners. Our businesses have consistently enjoyed a customer base that chooses products primarily

based on their performance, track record, safety and compliance. In many instances, our businesses produce critical equipment or components to a larger system, where value-in-use and costs and risks of switching far exceed the cost of the product itself. Our products tend to have meaningful replacement, consumable or aftermarket demand due, in part, to a large installed base because they play a specialized role in customer applications. Recurring demand, which includes parts, consumables, services and software, represents approximately 35% of our revenue. Additionally, many of our products enjoy recurring like-for-like replacement demand patterns. Our businesses increasingly complement our component or equipment offerings with digital solutions (such as connected products, sensors and software) that create new sources of value to our customers and allow Dover businesses to drive growth and increase relevance with our customers. Dover businesses also exhibit attractive financial profiles, characterized by predictable, stable revenue, low capital intensity, strong cash-flow and sustainable returns on invested capital well in excess of our cost of capital.

Business Strategy

To achieve our stated goals, we are focused on executing the following pillars of Dover's business strategy:

Capturing growth potential in our end-markets and adjacent market segments

Dover's business segments are focused on building enduring competitive advantages and leadership positions in markets we believe are positioned for sustained future growth. We believe our businesses are among the top suppliers in most markets and niches we serve (as defined by customer applications, geographies or products), which positions us well to capture future growth. We capitalize on our engineering, technology and design expertise, and maintain an intense focus on meeting the needs of our customers and on adding significant, and often new, value to their operations through superior product performance, safety, reliability, and a commitment to aftermarket support. We cultivate and maintain an entrepreneurial culture to enable business agility, and continuously innovate to address our customers' needs, to help them win in the markets they serve.

In particular, our businesses are well-positioned to capitalize on: growing industrial manufacturing and trade volumes; adoption of digital technologies; increasing requirements for sustainability, safety, energy efficiency and consumer product safety; and growth of the middle class and consumption in emerging economies. Our Engineered Products segment is capitalizing on secular growth in waste generation and the increasing sophistication and automation of waste collection operations, increasing car parc, car age and miles driven, as well as increasing digitization and sensorization of modern vehicles. Our Clean Energy & Fueling segment benefits from the worldwide growth in environmental safety and compliance regulations, new infrastructure build-out in emerging economies, consolidation in the convenience retail sector, increased digitization of convenience stores and fuel retailing, clean energy products, as well as secular growth in automated vehicle wash systems and solutions (over manual and do-it-yourself washing). Our Imaging & Identification segment leverages its unique product offering containing equipment, consumables, software and services to address market needs and requirements, including conversion to digital textile printing, increased demand for product traceability and brand protection, and consumer product safety. Our Pumps & Process Solutions segment is focused on: capturing growth in its installed base; the growing sophistication of fluid transfer and rotating machinery components within the biopharma and hygienic markets; chemical, plastics and polymer, industrial, mid and downstream oil & gas; and globalizing brands across geographies while expanding sales channels and engineering support. Our Climate & Sustainability Technologies segment is responding to our customers' demand for increased energy efficiency and sustainability in food retail merchandising solutions, as well as increasing demand for sustainable heating and cooling solutions and growing global demand for aluminum beverage con

We aim to capture growth by making organic investments in research and development, developing new products and technologies, improving digital capabilities, expanding our geographic coverage, and pursuing disciplined strategic acquisitions that will enhance our portfolio and position Dover for long-term growth. We continually evaluate how our assets and capabilities can position us to grow in markets adjacent to our core businesses (for example, new applications, geographies, product segments or adjacent technologies) where we can be advantaged.

In addition to product innovation, we aim to capture growth by developing digital technologies. Our Boston-based Dover Digital Labs serves as the company-wide hub for our digital initiative. We have continued to invest in this facility and our team of software developers, data scientists, and product managers to enhance our digital capabilities. The Digital Labs team is driving digital transformation across our businesses in three areas: (i) enhancing the customer experience through more

efficient and streamlined digital customer interfaces that make it easy to do business with Dover companies; (ii) developing connected software and machine learning augmented solutions built to integrate into and work with our core equipment and component offerings; and (iii) driving increased efficiency, safety and quality in our manufacturing operations by employing cutting-edge automation and "digital factory" solutions. We believe the Digital Labs center's contributions in these areas enable us to add significant value to our products and to capture commercial growth opportunities. By leveraging a central resource for Industrial Internet of Things ("IIoT") and connected product initiatives, we are able to capture efficiencies in our digital transformation efforts, improve product security and offer better efficiency in software and sensor integration engineering to keep our projects cost-competitive.

Improving profitability and return on invested capital

We are committed to generating sustainable returns on invested capital well above the cost of capital across all of our businesses. We continually evaluate and pursue opportunities to improve efficiency, margin and return on capital. We are intensely focused on driving operational excellence across our businesses. We have implemented numerous productivity initiatives to maximize our efficiency, such as supply chain integration, shared services, lean manufacturing principles and production automation, as well as workplace safety initiatives to help ensure the health and welfare of our employees. Our businesses place a strong emphasis on continual product quality improvement and new product development to better serve customers and to facilitate expansion into new products and geographic markets.

We also focus on margin expansion initiatives designed to reduce our selling, general and administrative cost base and rationalize our manufacturing and supply chain footprint across the portfolio. We continually expand initiatives to extract productivity gains across the businesses and realize savings. Our margin expansion initiatives are focused on four core enterprise capabilities: (1) leverage our Digital Labs team to enhance our internal and market-facing digital capabilities, (2) improve utilization and optimization of our manufacturing footprint through centralized resources and investment, (3) further centralize shared services under Dover Business Services, and (4) invest in our India Innovation Center shared services.

Dover Digital. Our Dover Digital Labs consists of a team of approximately 100 software developers, data scientists and product managers who provide digital capabilities to enhance the customer experience, develop connected products, and drive automation and efficiency inside our factories through digital technologies and in our business processes. Our Dover Digital Labs team has built common platforms which we have begun deploying on customer facing applications to make it easier to find, configure, buy and obtain products and services from Dover companies. It has also deployed shared IIoT capability such that many of Dover's products are remotely configurable and monitored, enabling our businesses to sell aftermarket parts and offer remote diagnostic services.

Dover Operational Excellence. In 2019, we began to coordinate and oversee operations management from the corporate center of excellence through a team composed of functional experts in operational optimization, lean manufacturing, automation, HSE (Health, Safety and Environment) and complex project management. This team works closely with our businesses to drive execution excellence in our operational processes, standards and measurement tools to identify, prioritize and monitor execution of operational improvement initiatives. With expertise in health and safety, supply chain management, lean operations, project management, and advanced manufacturing and automation, we continue to focus on initiatives to improve operational efficiency and enhance and solidify the continuous improvement programs embedded in our businesses' day-to-day operations.

Dover Business Services. We continue to invest in Dover Business Services shared service centers, consisting of a team of approximately 450 people, to provide important transactional and value-added services to our businesses. Our shared service model allows us to leverage scale across Dover, increase process efficiencies through technology and specialization, and reduce risk through centralized controls. Our shared service centers create value by freeing resources within our businesses that would otherwise be dedicated to transactional services and allowing them to focus on customers, markets and product excellence. We expect to continue driving efficiencies through Dover Business Services as we increase the level of service centralization across the portfolio.

India Innovation Center. Our India Innovation Center has a team of approximately 600 engineers and IT professionals that our businesses rely on to leverage for product engineering, digital solutions development, data & information management, research & development, and intellectual property services. The scale of this team allows our businesses to access resources

with capabilities and expertise across many disciplines that would be unaffordable to them as stand-alone companies, and allows for concurrent engineering on time sensitive projects.

We have been steadily investing in the build out and deployment of the above four enterprise capabilities in the past several years, including investing over \$20 million in capital expenditures during 2019-2021, and significantly expanding the staff of experts and support personnel in key centers of excellence globally.

Disciplined capital allocation and continuous portfolio enhancement

We are focused on the most efficient allocation of capital to maximize returns on investment. To do this, we utilize organic reinvestment to grow and strengthen our existing businesses. We plan to make average annual investments in capital spending of 2% - 3% of revenue with a focus on internal projects designed to expand our market participation, develop new products and improve productivity. In addition, we seek to deploy capital in acquisitions in attractive growth areas across our five segments. Dover focuses primarily on bolt-on acquisitions, applying strict selection criteria of market attractiveness (including growth, market landscape, and performance-based competition), business fit (including sustained leading position, revenue visibility, and favorable customer value-add versus switching cost or risk) and financial return profile (accretive growth and margins and double-digit return on invested capital). We opportunistically divest businesses where we see limited runway for future value creation relative to our aspirations, or where market and business fundamentals change and no longer fit our criteria of business attractiveness and portfolio fit. Finally, we have consistently returned cash to shareholders by paying dividends, which have increased annually over each of the last 66 years. We undertake opportunistic share repurchases as part of our capital allocation strategy. We employ a prudent financial policy to support our capital allocation strategy, which includes maintaining an investment grade credit rating.

Portfolio Development

Acquisitions

Our acquisition program has two key elements. As a first priority, we seek to acquire attractive add-on businesses with a strong fit that enhance our existing franchises either by increasing their reach and customer access, by broadening their product mix or by enhancing technological capability and customer value-add. Second, in the right circumstances, we may strategically pursue larger, stand-alone businesses that complement our existing businesses or provide a path for us to pursue growth in near adjacencies. With all our acquisitions, we seek businesses that are leaders in their markets or niches, have a strong track record for innovation, offer differentiated solutions, clearly complement our businesses, have a solid organic growth profile and attractive and sustainable returns, and offer significant synergy potential to generate double-digit return on capital within three years after the acquisition is completed.

Over the past three years (2019 through 2021), we have spent approximately \$1,677.3 million, net of cash acquired and including contingent consideration, to purchase eighteen businesses. For more details, see Note 3 — Acquisitions in the Consolidated Financial Statements in Item 8 of this Form 10-K.

Our future growth depends in large part on finding and acquiring successful businesses that expand the scope of our offerings and make us an even more important supplier to our customers. While we expect to generate annual organic revenue growth (greater than GDP or 3% to 5% annually on average) over a long-term business cycle absent extraordinary adverse economic conditions, our success in consistently growing the portfolio is also dependent on the ability to acquire and integrate businesses successfully within our existing structure. To track post-merger integration and accountability, we utilize an internal scorecard and well-defined processes to help ensure expected synergies are realized and value is created.

Dispositions

From time to time, we have sold or divested some of our businesses based on changes in specific market outlook, structural changes in financial performance, value-creation potential, or for other strategic considerations, which included an effort to reduce our exposure to cyclical markets or focus on our higher margin growth spaces.

Going forward, we recognize that some businesses in Dover's portfolio may have a greater value-creation potential if owned by another parent with a larger presence and focus on a given niche. We pragmatically consider such opportunities as part of

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our ongoing portfolio management and review processes, and execute divestitures if the value created is determined to be at an appropriate premium to the value of such business to Dover and the divestitures allow Dover shareholders to participate in the future value-creation potential from a change in ownership.

For more details, see Note 4 — Dispositions in the Consolidated Financial Statements in Item 8 of this Form 10-K.

Business Segments

As noted previously, Dover's five segments are structured around businesses with similar business models, go-to-market strategies and manufacturing practices. This structure enables management efficiency, aligns Dover's operations with its strategic initiatives and capital allocation priorities, and provides transparency about our performance to external stakeholders. Dover's five operating and reportable segments are as follows: Engineered Products, Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions and Climate & Sustainability Technologies. For financial information about our segments and geographic areas, see Note 19 — Segment Information in the Consolidated Financial Statements in Item 8 of this Form 10-K.

Engineered Products

Our Engineered Products segment provides a wide range of equipment, components, software, solutions and services that have broad customer applications across a number of markets, including: solid waste handling, aftermarket vehicle service, industrial automation, aerospace and defense, industrial winch and hoist, and fluid dispensing. Our waste handling business is a leading North American supplier of equipment, software and services for the refuse collection industry and for on-site processing and compaction of trash and recyclable materials. Our vehicle service business provides products, software and services used primarily in vehicle repair and maintenance, including light and heavy-duty vehicle lifts, wheel service equipment, vehicle diagnostics and vehicle collision repair solutions. The businesses in the industrial automation market provide a wide range of modular automation components including manual clamps, power clamps, rotary and linear mechanical indexers, conveyors, pick and place units, glove ports and manipulators, as well as end-of-arm robotic grippers, slides and end effectors. Our industrial winch and hoist business provides a range of winches, hoists, bearings, drives, and electric monitoring systems for infrastructure and other industrial markets. The segment also supplies radio frequency and microwave filters and switches, as well as signal intelligence solutions, to enable secure communications in aerospace and defense applications, and benchtop soldering and fluid dispensing solutions in electronics and industrial product assembly.

Our Engineered Products segment's products are manufactured primarily in the U.S., Europe and Asia and are sold throughout the world directly and through a network of distributors.

Clean Energy & Fueling

Our Clean Energy & Fueling segment provides components, equipment and software, and service solutions enabling safe storage, transport. handling and dispensing of clean and traditional fuels, cryogenic gases and other hazardous fluids, as well as safe and efficient operation of retail fueling and vehicle wash establishments across the globe. Among solutions supplied by the segment are dispensing equipment and components for gasoline, compressed natural gas (CNG), liquified natural gas (LNG) and hydrogen (H2) fueling sites, payment systems, hardware and underground containment systems, vehicle wash systems, as well as asset tracking, monitoring and operational optimization software.

Our Clean Energy & Fueling segment's products are manufactured primarily in North America, Europe, Asia, and South America and are sold throughout the world directly and through a network of distributors.

Imaging & Identification

The companies in our Imaging & Identification segment are global suppliers of precision marking and coding, packaging intelligence, product traceability, brand protection, and digital textile printing equipment and solutions, as well as related consumables, software and services. Our marking and coding businesses primarily design and manufacture equipment and consumables used for printing variable information (such as bar codes, dates, and serial numbers) on fast-moving consumer goods, provides serialization solutions for pharmaceutical customers, and develops supply chain traceability solutions capitalizing on expanding food and product safety, supply chain traceability and brand protection requirements. In addition, our businesses serving the apparel and textile printing market develop, manufacture and sell equipment, software, consumables and service solutions used in digital textile, soft signage and specialty materials markets. These businesses are benefiting from a secular shift from analog to digital printing, resulting from growing demand for "fast fashion", and more customized and complex fashion designs, as well as increasing environmental sustainability requirements (digital printing process is significantly more environment-friendly due to lower water consumption). Businesses within this segment leverage digital printing capabilities and operate business models that involve initial equipment and software sales followed by significant consumable, software and service aftermarket revenue streams.

Our Imaging & Identification segment's products are manufactured primarily in North America, Europe and Asia and are sold throughout the world directly and through a network of distributors.

Pumps & Process Solutions

The businesses in our Pumps & Process Solutions segment manufacture specialty pumps, single-use pumps, connectors and flow meters, plastics and polymers processing equipment, and highly-engineered components for rotating and reciprocating machinery. The segment's products are used in a wide variety of markets, including plastics and polymers processing, chemicals production, food/sanitary, biopharma, medical, transportation, petroleum refining, power generation and general industrial applications. The products in this segment are generally used in demanding and specialized operating environments with high performance requirements. Businesses within this segment share the following commonalities: their products are predominantly components or parts of larger equipment and production systems with our products often specified by end customers or regulations, they participate in markets with a diverse and fragmented customer base and where there is a significant demand for aftermarket equipment and parts from a large installed base, and the route-to-market is a mix of distribution and direct sales.

Our Pumps & Process Solutions segment's products are manufactured primarily in North America, Europe, and Asia and are sold throughout the world directly and through a network of distributors and original equipment manufacturers.

Climate & Sustainability Technologies

Our Climate & Sustainability Technologies segment is a provider of innovative and energy-efficient equipment and systems that serve the commercial refrigeration, heating and cooling, and container and beverage packaging equipment markets. Our refrigeration business manufactures refrigeration systems (including environmentally friendly systems like CO²), refrigeration display cases, commercial glass refrigerator and freezer doors and brazed plate heat exchangers used for industrial heating and cooling and residential climate control. Other businesses in this segment design and manufacture machinery and associated spare parts used for beverage container-making. The majority of the products that are manufactured or serviced by the Climate & Sustainability Technologies segment are used by the retail food industry, including supermarkets, "big-box" retail and convenience stores, the commercial/industrial refrigeration industry, food production markets and beverage container-making industries.

Our Climate & Sustainability Technologies segment's products are manufactured primarily in North America, Europe and Asia and are sold globally, directly and through a network of distributors.

Raw Materials

We use a wide variety of raw materials, primarily metals and semi-processed or finished components, which are generally available from a number of sources. As a result, the loss of any single supplier have not had, and are not likely to have, a material impact on operating profits at the consolidated level. While the required raw materials are generally available, commodity pricing can be volatile, particularly for various grades of steel, copper, aluminum and select other commodities. Although cost increases in commodities may be recovered through increased prices to customers, our operating results are exposed to such fluctuations. We attempt to control such costs through fixed-price contracts with suppliers and various other programs, such as our global supply chain activities.

Markets for multiple raw materials saw significant cost increases throughout 2021, as well as increases in transportation costs to deliver materials to our manufacturing sites, which we partially offset through price increases and other levers. Additionally, supply chain disruptions have caused shortages of material inputs in several of our businesses, which negatively impacted profitability of such businesses as we were required to seek alternative sources of supply at higher costs or interrupt our normal manufacturing process flow leading to less efficient output and cost.

Research and Development

Our businesses invest to develop innovative new products, as well as to upgrade and improve existing products, to satisfy customer needs, including demand for energy-efficient products designed to help customers meet sustainability goals, expand revenue opportunities geographically, maintain or extend competitive advantages, improve product reliability and reduce production costs.

Our Imaging & Identification segment expends significant effort in research and development because the rate of product development by their customers is often quite high. Our businesses that develop product identification, printing equipment and software solutions believe their customers expect a continuing rate of product innovation, performance improvement and reduction in total cost of ownership. The result has been downward pricing trends that can only be mitigated with the continuous introduction of innovative product solutions in a market where product life cycles generally average less than seven years.

Our Clean Energy & Fueling segment invests in research and development to advance innovative traditional and alternative fuel dispensing equipment and components, payment platforms, fuel site asset management and connectivity solutions, IIoT-enabled cloud-based connected solutions for retail and commercial fleet fueling settings, components for high-criticality cryogenic gas storage and transportation applications, including hydrogen and liquified natural gas. These technology investments align with our customer's needs and our commitment to delivering to our customers opportunities for operational cost reductions, increased sales, and an enhanced customer experience for their customers through a combination of intelligent fueling and retail solutions.

Our Pumps & Process Solutions segment invests in research and development for new product introduction and custom solutions to drive volume and share in both existing markets and newer/faster growth markets – such as single-use biopharmaceutical manufacturing and liquid cooling of high performance electronics. These investments will allow us to take advantage of existing growth trends such as vaccine production for certain COVID-19 vaccines and also cell and gene therapy applications coming on the market.

Many of our businesses are also involved in important product improvement initiatives. These businesses concentrate on working closely with customers on specific applications, expanding product lines and market applications and continuously improving manufacturing processes. Some of these businesses experience a much more rapid rate of change requiring higher product development capability and new product introduction.

Similarly, our businesses invest in research and development to pursue digital strategies based on customer needs and leverage the capabilities of the Dover Digital Labs center to deliver on those digital strategies. For example, Vehicle Services Group, within the Engineered Products segment, launched Mosaic Advanced Diagnostic Technology built in partnership with Burke Porter Group and work completed at the Digital Labs. Mosaic is the automotive repair industry's first digitally enabled cloud based after-market advanced driver assistance systems ("ADAS") sensor calibration technology. Environmental Solutions Group, from the Engineered Products segment, launched artificial intelligence capabilities through 3rd Eye Digital Solution to use data to improve operations outcomes for waste hauling fleets.

Human Capital Resources

Our employees are our most valuable asset and are critical to our ability to deliver on our strategic plans. Our success in delivering high quality and innovative products and solutions for our customers and driving operational excellence is only achievable through the talent, expertise, and dedication of our global team. We had approximately 25,000 employees worldwide as of December 31, 2021.

Attraction, Development, and Retention

We recognize that attracting, developing and retaining skilled talent and promoting a diverse and inclusive culture are essential to maintaining our leadership positions in the markets we serve. While our operating companies are the hubs of these activities — an effective model that puts ownership in the businesses and cultures that are the source of opportunities for employees — we are increasingly leveraging the corporate center to drive talent recruitment and development and consistent human capital management practices across our businesses. This center-led focus is enabling us to make development opportunities available across our enterprise which promotes employee advancement, engagement and retention. We offer employees resources to continuously improve their skills and performance with the goal of further cultivating the diverse, entrepreneurial talent inside our global businesses to fill key positions. We seek people who are proactive and dedicated, demonstrate an ownership mindset and share our commitment to the pursuit of operational excellence. We continue to make significant investments in talent development and recognize that the growth and development of our employees is essential for our continued success.

Diversity and Inclusion

We view the diversity of our employees as a strength to better serve our customers and communities. We also believe the diversity of our workforce enables us to attract new talent, keeps our employees engaged and productive, and advances innovation from ideas reflecting the broad diversity of our employees' backgrounds, experiences, and perspectives. To that end, we have taken various actions to enhance diversity, including partnering with organizations that can support our efforts to identify and recruit talented and diverse candidates.

We aim to cultivate an inclusive culture that enables employees to feel connected to our business objectives and valued for their contributions. One of the ways in which we seek to promote an inclusive work environment is by supporting our operating companies in establishing employee resource groups. These groups allow for collaboration and serve as an open forum for networking, professional development, and mentoring. We are committed to our efforts to maintain a work environment that is professional, inclusive, and free from discrimination and harassment. To help educate our workforce on the benefits of an inclusive environment, and drive awareness, we have invested in training across the organization focused on diversity and inclusion topics.

Health and Safety

We are committed to providing a healthy environment and safe workplace by operating in accordance with established health and safety protocols across our facilities and maintaining an enhanced health and safety compliance program. We regularly conduct self-assessments to examine our safety culture and processes. In response to COVID-19, we have taken and continue to take measures to protect our workforce. We have modified practices at our manufacturing locations and offices to adhere to guidance from the U.S. Centers for Disease Control and Prevention and local health and governmental authorities in our global network. In addition, we have invested at the corporate center to provide oversight, enhance coordination and ensure robust safety protocols are present across our operations.

Human Capital Investments Related to Strategic Priorities

In line with our strategic priorities, we have additionally invested in the following aspects of human capital resource management, among other areas:

- Dover Digital Labs We are continuing to leverage our Digital Labs team to improve our digital capabilities. Our team of software developers,
 data scientists, and product managers drive digital transformation across our businesses by enhancing customer experience, developing connected
 products, and enabling digital manufacturing.
- Operational management Our operations teams, including our management team at the corporate center, continually focuses on improving operational efficiency, such as implementing production automation.
- Shared services We are continuing to further centralize shared services under Dover Business Services and our India Innovation Center. Our shared services capabilities include a wide range of functional areas including transactional support, human resources, IT, engineering and product development. These services enable productivity and growth as well as free up resources at our businesses to focus on customers, markets and product development.

Intellectual Property and Intangible Assets

Our businesses own many patents, trademarks, licenses and other forms of intellectual property, which have been created, registered or acquired over a number of years and, to the extent relevant, expire at various times over a number of years. A large portion of our businesses' intellectual property consists of patents, unpatented technology and proprietary information constituting trade secrets that we seek to protect in various ways, including confidentiality agreements with employees and suppliers where appropriate. In addition, a significant portion of our intangible assets relate to customer relationships. While our intellectual property and customer relationships are important to our success, the loss or expiration of any of these rights or relationships, or any group of related rights or relationships, is not likely to materially affect our results on a consolidated basis. We believe that our commitment to continuous engineering improvements, new product development and improved manufacturing techniques, as well as strong sales, marketing and service efforts, are significant to our general leadership positions in the niche markets we serve.

Customers

We serve thousands of customers, none of which accounted for more than 10% of our consolidated revenue in 2021. Given our diversity of served markets, customer concentrations are not significant. Businesses supplying the environmental solutions, defense, automotive and commercial refrigeration industries tend to deal with a few large customers that are significant within those industries. This also tends to be true for businesses supplying the power generation and chemical industries. In the other markets served, there is usually a much lower concentration of customers, particularly where our companies provide a substantial number of products and services applicable to a broad range of end-use applications.

Seasonality

In general, while our businesses are not highly seasonal, we do tend to have stronger revenue generation in the second half of the year, which is driven by customer capital expenditure timing and seasonal activity patterns in our end-markets. Our businesses serving the retail fueling market tend to increase in the second half of the year based on the historical purchasing patterns of their customers. Our businesses serving the major equipment markets, such as power generation, chemical and processing industries, have longer lead times geared to seasonal, commercial, or consumer demands and customers in these markets tend to delay or accelerate product ordering and delivery to coincide with those market trends which moderates the aforementioned seasonality patterns. Our food retail refrigeration business tends to face higher levels of demand in the second and third quarters as retailers avoid construction and remodeling activity during fall/winter holidays.

Competition

Our competitive environment is complex because of the wide diversity of our products manufactured and the markets served. In general, most of our businesses are market leaders that compete with only a few companies, and the key competitive factors are customer service, product quality, price and innovation. A summary of our key competitors within each of our segments follows:

Segment	Key Competitors
Engineered Products	Snap-On Inc. (Challenger Lifts, Car-O-Liner), Vontier (Hennessey Industries, Inc.), Oshkosh Corp. (McNeilus), Labrie Enviroquip Group, Geotab Inc., AMCS Group, Tünkers Maschinenbau GmbH, PACCAR (Braden), and numerous others
Clean Energy & Fueling	Vontier (Gilbarco Veeder-Root, DRB), Tatsuno, Verifone, Franklin Electric, Elaflex, Ingersoll Rand (Emco Wheaton), Dixon Valve & Coupling Company, Professional Datasolutions, Inc. (PDI), Salco, Sonny's Enterprises LLC, National Carwash Solutions, Washtec AG
Imaging & Identification	Danaher Corporation (Videojet), Brother Industries, Ltd. (Domino Printing), Electronics for Imaging (Reggiani), SPG Prints, Konica Minolta, Kornit Digital Ltd.
Pumps & Process Solutions	IDEX Corporation, Ingersoll Rand (Milton Roy, Dosatron, ARO), Millipore, Danaher Corporation (Pall), Nordson Corporation, ITT, SPX Flow Inc. (Waukesha), Spirax Sarco, Kingsbury, Seko, Ecolab, Hoerbiger Holdings AG, Miba AG, Hillenbrand Inc. (Coperion)
Climate & Sustainability Technologies	Panasonic (Hussman Corp.), Alfa Laval, Stolle Machinery

International

Consistent with our strategic focus on positioning our businesses for growth, we aim to grow our revenue in international markets, particularly in developing economies in Asia, the Middle East, Eastern Europe and South America.

Most of our non-U.S. subsidiaries and affiliates are currently based in China, France, Germany, Italy, Sweden, Switzerland, the United Kingdom, and other locations including Australia, Brazil, Canada, India, Mexico, and the Netherlands.

The following table shows annual revenue derived from customers outside the U.S. as a percentage of total annual revenue for each of the last three years, by segment and in total:

		e of Non-U.S. Revo by Segment	enue
	Years E	Inded December 3	1,
	2021	2020	2019
Engineered Products	27 %	27 %	27 %
Clean Energy & Fueling	45 %	45 %	52 %
Imaging & Identification	75 %	75 %	77 %
Pumps & Process Solutions	53 %	51 %	49 %
Climate & Sustainability Technologies	37 %	37 %	39 %
Total percentage of revenue derived from customers outside of the United States	46 %	45 %	47 %

Our international operations are subject to certain risks, such as price and exchange rate fluctuations and non-U.S. governmental restrictions, which are discussed further in Item 1A. "Risk Factors." For additional details regarding our non-U.S. revenue and the geographic allocation of the assets, see Note 19 — Segment Information to the Consolidated Financial Statements in Item 8 of this Form 10-K.

Environmental Matters

Sustainability

We are committed to creating economic value for shareholders by developing products designed to help our customers meet their sustainability goals, run their operations more efficiently and satisfy evolving regulatory and environmental standards. We believe that sustainability-driven innovation in response to customer demand helps us contribute positively to enhanced resource efficiency and waste reduction while presenting a valuable growth opportunity. Aligned with this commitment, in 2021, we announced science-based targets to reduce our greenhouse gas emissions. These targets include an absolute reduction of scope 1 and scope 2 market-based greenhouse gas emissions of 30 percent by 2030, from a 2019 baseline year, and an absolute reduction of scope 3 greenhouse gas emissions of 15 percent by 2030, from a 2019 baseline year.

We highlight key initiatives and performance metrics about our sustainability activities under the "Sustainability" tab on our website, www.dovercorporation.com.

Other Matters

Our operations are governed by a variety of international, national, state and local environmental laws. We are committed to continued compliance and believe our operations generally are in substantial compliance with these laws. In a few instances, particular plants and businesses have been the subject of administrative and legal proceedings with governmental agencies or private parties relating to the discharge or potential discharge of regulated substances. Where necessary, these matters have been addressed with specific consent orders to achieve compliance.

There have been no material effects upon our earnings and competitive position resulting from our compliance with laws or regulations enacted or adopted relating to the protection of the environment. We are aware of a number of existing or upcoming regulatory initiatives intended to reduce emissions in geographies where our manufacturing and warehouse/distribution facilities are located and have evaluated the potential impact of these regulations on our businesses. We anticipate that direct impacts from regulatory actions will not be significant in the short- to medium-term. We expect the regulatory impacts associated with climate change regulation would be primarily indirect and would result in "pass-through" costs from energy suppliers, suppliers of raw materials and other services related to our operations.

Other Information

We make available free of charge through the "Investor Information" link on our website, www.dovercorporation.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to these reports. We post each of these reports on the website as soon as reasonably practicable after the report is filed with the Securities and Exchange Commission. The contents of our website are not intended to be incorporated by reference into this Form 10-K, and any reference to our website is intended to be inactive textual references only.

ITEM 1A. RISK FACTORS

The risk factors discussed in this section should be considered together with information included elsewhere in this Form 10-K and should not be considered the only risks to which we are exposed. In general, we are subject to the same general risks and uncertainties that impact many other industrial companies such as general economic, industry and/or market conditions and growth rates; the impact of natural disasters and their effect on global markets; and changes in laws or accounting rules. Additional risks and uncertainties not currently known to us or that we currently believe are immaterial also may impair our businesses, including our results of operations, liquidity and financial condition.

Business and Operational Risks

 The COVID-19 pandemic has adversely impacted, and continues to pose risks to, our businesses, the nature and extent of which are highly uncertain and unpredictable.

The COVID-19 pandemic has disrupted the global economy and adversely impacted our businesses, including demand for our products across multiple end-markets as well as our supply chain and operations. While we have experienced sequentially improving activity in most markets and geographies, the public health situation, global response measures and corresponding impacts on various markets remain fluid and uncertain and may lead to sudden changes in trajectory and outlook. Accordingly, we are currently unable to quantify the full and long-term impact of the pandemic on our results of operations, financial position and cash flows.

We have taken and will continue to take steps to mitigate the risks of COVID-19 by working with our customers, employees, suppliers and other stakeholders. Significant portions of our workforce and operations have been impacted by quarantines, government orders and guidance, facility closures, illness, travel restrictions, implementation of precautionary measures and other restrictions. Over the course of the pandemic, we have continued to operate in accordance with established health and safety protocols across our facilities while maintaining an enhanced health and safety compliance program. More specifically, we have modified practices at our manufacturing locations and offices to adhere to guidance from the U.S. Centers for Disease Control and Prevention and local health and governmental authorities in our global network with respect to social distancing, physical separation, personal protective equipment and sanitization, and have restricted the number of employees permitted in common areas at any given time. The emergence of new variants of COVID-19, evolving government plans around the world to institute vaccination mandates, including in the U.S., and limited availability of vaccines in various jurisdictions, create uncertainty that may impact our employees and result in labor shortages and unforeseen costs. In addition, because the pandemic has decreased customer demand in many of our end-markets, some of our businesses have continued to operate at reduced capacity. We cannot predict the number or timing of any future facility closures, the potential for operating at reduced capacity or the size of the workforce that may be impacted by potential labor actions such as furloughs or layoffs.

The extent to which our operations may be impacted by COVID-19 will depend on future developments that are highly uncertain, including the pandemic's duration, the emergence of different COVID-19 variants, the efficacy and adoption rates of vaccines, the availability of recently approved oral medicines and actions by governments and private enterprises to contain the outbreak or mitigate the impact of the pandemic. For example, applicable laws and government measures, such as U.S. federal vaccine mandates or Occupational Safety and Health Administration requirements for vaccination or regular testing, could also result in skilled labor impacts including voluntary attrition or difficulty finding labor or otherwise adversely affect our ability to operate our facilities, obtain materials and component inputs from suppliers or deliver our products in a timely manner. Furthermore, the pandemic has impacted and may further impact the broader economies of affected countries, including negatively impacting economic growth, the proper functioning of financial and capital markets, foreign currency exchange rates and interest rates. Due to the continuing uncertainties surrounding the pandemic, we are unable to predict the ultimate impact that it will have on our financial position, operating results and cash flows in future periods.

• Increases in labor costs, potential labor disputes and work stoppages or an inability to hire skilled personnel could adversely affect our business.

We have a number of collective bargaining units in the U.S. and various collective labor arrangements outside the U.S. We are subject to potential work stoppages, union and works council campaigns and other labor disputes, any of which could adversely impact our productivity, reputation, results of operations, financial condition and cash flows.

Furthermore, the competition for skilled personnel is often intense in the regions in which our manufacturing facilities are located. A sustained labor shortage or increased turnover rates within our employee base, increases in the salaries and wages paid by competing employers, as a result of general macroeconomic factors or otherwise, could lead to increased costs, such as increased overtime to meet demand and potentially further increase salaries and wage rates to attract and retain employees, and could negatively affect our ability to efficiently operate our manufacturing facilities and overall business. If we are unable to hire and retain employees capable of performing at a high level, our business, financial condition and results of of operations could be adversely affected.

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

While we strive to maintain high standards, we cannot provide assurance that our internal controls and compliance systems will always protect us from acts committed by our employees, agents, or business partners that would violate the laws of the jurisdictions where we do business, including the laws governing payments to government officials, bribery, fraud, anti-kickback and false claims, competition, export and import compliance, environmental compliance, money laundering and data privacy, as well as the improper use of proprietary information or social media. Any such violations of law or improper actions could: subject us to civil or criminal investigations; lead to substantial civil or criminal, monetary and non-monetary penalties and related shareholder lawsuits; lead to increased costs of compliance; and damage our reputation, our consolidated results of operations, financial condition and cash flows.

• We are subject to risks relating to our existing international operations and expansion into new geographical markets.

Approximately 46% and 45% of our revenues for 2021 and 2020, respectively, were derived outside the United States and we expect international sales to continue to represent a significant portion of our revenues given our global growth strategy. As a result of our international operations and our global expansion strategy, we are subject to various risks, including:

- o political, social and economic instability and disruptions;
- o government import and export controls, economic sanctions, embargoes or trade restrictions;
- o the imposition of duties and tariffs and other trade barriers and retaliatory countermeasures;
- o limitations on ownership and dividend of earnings;
- o transportation delays and interruptions;
- o labor unrest and current and changing regulatory environments;
- o widespread public health crises, such as a pandemic or epidemic;
- o increased compliance costs, including costs associated with disclosure requirements and related due diligence;
- o the impact of loss of a single-source manufacturing facility;
- o difficulties in staffing and managing multi-national operations;
- o limitations on our ability to enforce legal rights and remedies;
- o potentially adverse tax consequences; and
- o access to or control of networks and confidential information due to local government controls and vulnerability of local networks to cyber risks.

If we are unable to successfully manage the risks associated with expanding our global business or adequately manage operational risks of our existing international operations, the risks could have a material adverse effect on our growth in geographic markets, our reputation, our consolidated results of operations, financial position and cash flows.

Our operations, businesses and products are subject to cybersecurity risks.

We depend on our own and third party IT systems, including cloud-based systems and managed service providers, to store, process and protect our information and support our business activities. We also use third party IT systems to support employee data processing for our global workforce and to support customer business activities, such as transmitting payment information, providing mobile monitoring services, and capturing operational data. Additionally, some of our products contain computer hardware and software and offer the ability to connect to computer networks. Increasingly, our customers, including government customers, are requiring cybersecurity protections and mandating cybersecurity standards for our products. Our business has both an increasing reliance on IT systems and an increasing digital footprint as a result of changing technologies, connected devices and digital offerings, as well as expanded remote work policies. If these technologies, systems, products or services are damaged, cease to function properly, are compromised due to employee or third-party contractor error, user error, malfeasance, system errors, or other vulnerabilities, or are subject to cybersecurity attacks, such as those involving denial of service attacks, unauthorized access, malicious software, or other intrusions, including by criminals, nation states or insiders, our business may be adversely impacted. The impacts could include production downtimes, operational delays, and other impacts on our operations and ability to provide products and services to our customers; compromise of confidential, proprietary or otherwise protected information, including personal information and customer confidential data; destruction, corruption, or theft of data or intellectual property; manipulation, disruption, or improper use of these technologies, systems, products or services; financial losses from fraudulent transactions, remedial actions, loss of business or potential liability; adverse media coverage; and legal claims or legal proceedings, including regulatory investigations, actions and fines; and damage to our reputation. There has been a rise in the number of cyberattacks targeting confidential business information generally and in the manufacturing industry specifically, as well as an increase in cyberattacks targeting managed service providers, by both state-sponsored and criminal organizations. Moreover, there has been a rise in the number of

cyberattacks that depend on human error or manipulation, including phishing attacks or schemes that use social engineering to gain access to systems or perpetuate wire transfer or other frauds.

These trends increase the likelihood of such events occurring as well as the costs associated with protecting against such attacks. It is possible for vulnerabilities in our IT systems to remain undetected for an extended period of time up to and including several years. We attempt to mitigate these risks by employing a number of measures, including employee training, systems monitoring and other technical security controls, a breach response plan, maintenance of backup and protective systems, and security personnel. Notwithstanding those measures, our systems, networks, products and services remain potentially vulnerable to known or unknown cybersecurity attacks and other threats, any of which could have a material adverse effect on our consolidated results of operations, financial condition and cash flows. We, and the service providers that we depend on to support our systems and business operations, are regularly the target of, and periodically respond to, cyberattacks, including phishing and denial-of-service attacks, and must continuously monitor and develop our systems to protect our technology infrastructure and data from misappropriation or corruption. In addition, a cybersecurity attack could persist for an extended period of time before being detected, and, following detection, it could take considerable time for us to obtain full and reliable information about the extent, amount and type of information compromised. During the course of an investigation, we may not know the full impact of the event and how to remediate it, and actions, decisions and mistakes that are taken or made may further increase the negative effects of the event on our business, results of operations and reputation. While we maintain insurance coverage that is intended to address certain aspects of cybersecurity risks, such insurance coverage may not cover all losses or all types of claims that arise. As cyber threats continue to evolve, cybersecurity and data protection laws and regulations continue to develop in the U.S. and globally, and our business continues to move towards increased online connectivity within our information systems and through more Internet-enabled products and offerings, we expect to expend additional resources to continue to build out our compliance programs, strengthen our information security, data protection and business continuity measures, and investigate and remediate vulnerabilities.

 Unforeseen developments in contingencies such as litigation and product recalls could adversely affect our consolidated results of operations, financial condition and cash flows.

We and certain of our subsidiaries are, and from time to time may become, parties to a number of legal proceedings incidental to our businesses, including alleged injuries arising out of the use of products or exposure to hazardous substances, or claims related to patent infringement, employment matters and commercial disputes. The defense of these lawsuits may require significant expenses and divert management's attention, and we may be required to pay damages that could adversely affect our consolidated results of operations, financial condition and cash flows. In addition, any insurance or indemnification rights that we may have may be insufficient or unavailable to protect us against potential loss exposures.

We may be exposed to product recalls and adverse public relations if our products are alleged to have defects, to cause property damage, to cause injury or illness, or if we are alleged to have violated governmental regulations. A product recall could result in substantial and unexpected expenditures, which would reduce operating profit and cash flow. In addition, a product recall may require significant management attention. Product recalls may hurt the value of our brands and lead to decreased demand for our products. Product recalls also may lead to increased scrutiny by federal, state or international regulatory agencies of our operations and increased litigation and could have a material adverse effect on our consolidated results of operations, financial condition and cash flows.

 Our revenue, operating profits and cash flows could be adversely affected if our businesses are unable to protect or obtain patent and other intellectual property rights.

Our businesses own patents, trademarks, licenses and other forms of intellectual property related to their products and continuously invest in research and development that may result in innovations and general intellectual property rights. Our businesses employ various measures to develop, maintain and protect their intellectual property rights. These measures may not be effective in capturing intellectual property rights, and they may not prevent their intellectual property from being challenged, invalidated, or circumvented, particularly in countries where intellectual property rights are not highly developed or protected. Unauthorized use of our businesses' intellectual property rights could adversely impact the competitive position of our businesses and could have a negative impact on our consolidated results of operations, financial condition and cash flows.

• We could be negatively impacted by environmental, social and governance (ESG) and sustainability matters.

Governments, shareholders, customers, employees and other stakeholders are increasingly focusing on corporate ESG practices and disclosures, and expectations in this area are rapidly evolving and growing. We have announced certain initiatives, including goals, regarding our focus areas, which include greenhouse gas emissions reductions, health and safety, diversity and inclusion, talent attraction and development, and innovation for sustainable products. The criteria by which our ESG practices are assessed may change due to the evolution of the sustainability landscape, which could result in greater expectations of us and may cause us to undertake costly initiatives to satisfy new criteria. Moreover, the increasing attention to sustainability could also result in reduced demand for certain of our products or services and/or reduced profits. If we are unable to respond effectively, investors may conclude that our policies and/or actions with respect to ESG matters are inadequate. If we fail or are perceived to have failed to achieve previously announced initiatives or goals or to accurately disclose our progress on such initiatives or goals, our reputation, business, financial condition and results of operations could be adversely impacted.

Industry Risks

 Increasing product, service and price competition by international and domestic competitors, including new entrants, and our inability to introduce new and competitive products could cause our businesses to generate lower revenue, operating profits and cash flows.

Our competitive environment is complex because of the wide diversity of the products that our businesses manufacture and the markets they serve. In general, most of our businesses compete with only a few companies. Our ability to compete effectively depends on how successfully we anticipate and respond to various competitive factors, including new products, digital solutions and support services that may be introduced by competitors, changes in customer preferences, evolving regulations, new business models and technologies and pricing pressures. If our businesses are unable to anticipate their competitors' developments or identify customer needs and preferences on a timely basis, successfully introduce new products, digital solutions and support services in response to such competitive factors, or adopt to market changes relating to climate change related policies, they could lose customers to competitors. If our businesses do not compete effectively, we may experience lower revenue, operating profits and cash flows.

 Our operating results depend in part on the timely development and commercialization, and customer acceptance, of new and enhanced products, digital solutions and support services based on technological innovation.

The success of new and improved products, digital solutions and support services depends on their initial and continued acceptance by our customers. Certain of our businesses sell in markets that are characterized by rapid technological changes, frequent new product introductions, changing industry standards and corresponding shifts in customer demand, which may result in unpredictable product transitions, shortened life cycles and increased importance of being first to market. Failure to correctly identify and predict customer needs and preferences, to deliver high quality, innovative and competitive products to the market, to adequately protect our intellectual property rights or to acquire rights to third-party technologies, to provide adequate data security and privacy protections and to stimulate customer demand for, and convince customers to adopt new products, digital solutions and support services could adversely affect our consolidated results of operations, financial condition and cash flows. In addition, we may experience difficulties or delays in the research, development, production or marketing of new products, digital solutions and support services which may prevent us from recouping or realizing a return on the investments required to continue to bring new products and services to market.

We could lose customers or generate lower revenue, operating profits and cash flows if there are significant increases in the cost of our raw
materials or components, if suppliers are not able to meet our quality and delivery requirements.

We purchase raw materials, sub-assemblies and components for use in our manufacturing operations. Factors such as freight costs, transportation availability, inventory levels, the level of imports, the imposition of duties, tariffs and other trade barriers and general economic conditions may affect the price of these raw materials, sub-assemblies and components. Significant price increases for certain commodities, other raw materials or components could adversely affect operating profits of our businesses. While we generally attempt to mitigate the impact of increased raw material

prices by hedging or passing along the increased costs to customers, there may be a time delay between the increased raw material prices and the ability to increase the prices of products, or we may be unable to increase the prices of products due to a competitor's pricing pressure or other factors.

We use a wide range of raw materials and components in our manufacturing operations that come from numerous suppliers. While we believe that sources of supply for raw materials and components are generally adequate, it is difficult to predict what effects of extended lead times or shortages may have in the future. In addition, some of the raw materials and components may be available only from limited or single source suppliers. If a single source or limited source supplier were to cease or interrupt production for any reason or otherwise fail to supply those raw materials or components to us on favorable purchase terms, including at favorable prices, in sufficient quantities and with adequate lead times needed for efficient manufacturing, our ability to meet customer commitments, and satisfy market demands for affected products could be negatively affected. The disruption of our global supply chain for any reason, including for issues such as COVID-19 or other health epidemics or pandemics, labor disputes, loss of single source or limited source supplier, inability to procure sufficient raw materials, quality control issues, ethical sourcing issues, a supplier's financial distress, natural disasters, looting, vandalism or acts of war or terrorism, trade sanctions or other external factors over which we have no control, could interrupt product supply and, if not effectively managed and remedied, have a material adverse impact on our business operations, financial condition and results of operations.

Legal and Regulatory Risks

Our businesses are subject to regulation and their profitability and reputation could be adversely affected by domestic and foreign governmental
and public policy changes, risks associated with emerging markets, changes in statutory tax rates and unanticipated outcomes with respect to tax
audits.

Our businesses' domestic and international sales and operations must comply with a wide variety of laws, regulations and policies (including environmental, employment and health and safety regulations, data security laws, data privacy laws, export/import laws, tax policies such as export subsidy programs and research and experimentation credits, carbon emission regulations, energy efficiency and design regulations and other similar programs). These laws, regulations and policies are complex, change frequently, have tended to become more stringent over time and may be inconsistent across jurisdictions. Failure to comply (or any alleged or perceived failure to comply) with any of the foregoing could result in civil and criminal, monetary and non-monetary penalties as well as potential damage to our reputation and disruption to our business. We cannot provide assurance that our costs of complying with new and evolving regulatory reporting requirements and current or future laws will not exceed our estimates. Any of these factors could adversely affect customer demand, our relationships with customers and suppliers, and our business and financial position.

Certain of our businesses have sales or operations in countries, including Brazil, Russia, India and China, and may in the future invest in other countries, any of which may carry high levels of currency, political, compliance, or economic risk. While these risks or the impact of these risks are difficult to predict, any one or more of them could adversely affect our businesses and reputation.

Our effective tax rate is impacted by the mix of earnings among countries with differing statutory tax rates, changes in the valuation allowance of deferred tax assets and changes in income tax laws. The amount of income taxes and other taxes paid can be adversely impacted by changes in statutory tax rates and laws and are subject to ongoing audits by governmental authorities. If these audits result in assessments different from amounts estimated, then our consolidated results of operations, financial position and cash flows may be adversely affected by unfavorable tax adjustments.

Financial and Strategic Risks

• Our exposure to exchange rate fluctuations on cross-border transactions and the translation of local currency results into U.S. dollars could negatively impact our results of operations.

We conduct business through our subsidiaries in many different countries, and fluctuations in currency exchange rates could have a significant impact on our reported consolidated results of operations, financial condition and cash flows, which are presented in U.S. dollars. Cross-border transactions, both with external parties and intercompany relationships, result in increased exposure to foreign exchange effects. Accordingly, significant changes in currency exchange rates, particularly the euro, Chinese renminbi (yuan), Swedish krona, pound sterling, Indian rupee, Singapore dollar, Danish

krone, and Canadian dollar, could cause fluctuations in the reported results of our businesses' operations that could negatively affect our results of operations. Additionally, the strengthening of certain currencies such as the euro and U.S. dollar potentially exposes us to competitive threats from lower cost producers in other countries. Our sales are translated into U.S. dollars for reporting purposes. The strengthening of the U.S. dollar could result in unfavorable translation effects as the results of foreign locations are translated into U.S. dollars.

Our growth and results of operations may be adversely affected if we are unsuccessful in our capital allocation and acquisition program.

We expect to continue our strategy of seeking to acquire value creating add-on businesses that broaden our existing position and global reach as well as, in the right circumstances, strategically pursue larger acquisitions that could have the potential to either complement our existing businesses or allow us to pursue a new platform. However, there can be no assurance that we will be able to continue to find suitable businesses to purchase, that we will be able to acquire such businesses on acceptable terms, or that all closing conditions will be satisfied with respect to any pending acquisition. In addition, we face the risk that a completed acquisition may underperform relative to expectations. We may not achieve the synergies originally anticipated, may become exposed to unexpected liabilities or may not be able to sufficiently integrate completed acquisitions into our current business and growth model. Further, if we fail to allocate our capital appropriately, in respect of either our acquisition program or organic growth in our operations, we could be overexposed in certain markets and geographies and unable to expand into adjacent products or markets. These factors could potentially have an adverse impact on our consolidated results of operations, financial condition and cash flows.

• The indemnification provisions of acquisition and disposition agreements by which we have acquired or sold or disposed of companies may not fully protect us and may result in unexpected liabilities.

Certain of the acquisition agreements by which we have acquired companies require the former owners to indemnify us against certain liabilities related to the operation of those companies before we acquired them. In most of these agreements, however, the liability of the former owners is limited and certain former owners may be unable to meet their indemnification responsibilities. Similarly, the purchasers of our disposed operations may from time to time agree to indemnify us for operations of such businesses after the closing. We cannot be assured that any of these indemnification provisions will fully protect us, and as a result we may face unexpected liabilities that adversely affect our consolidated results of operations, financial condition and cash flows. In addition, we have retained certain liabilities directly or through indemnifications made to the buyers of businesses we have sold or disposed against known and unknown contingent liabilities such as tax liabilities and environmental matters.

There can be no assurance that the indemnity agreements will be sufficient to protect us against the full amount of any liabilities that may arise, or that the indemnitors will be able to fully satisfy their indemnification obligations. The failure to receive amounts for which we are entitled to indemnification could adversely affect our results of operations, cash flows and financial condition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

The number, type, location and size of the properties used by our operations as of December 31, 2021 are shown in the following charts, by segment:

	N	Number and nature of facilities							
	Manufacturing	Warehouse	Sales / Service	Total	Owned	Leased			
Engineered Products	26	19	10	55	2,908	1,175			
Clean Energy & Fueling	29	8	29	66	1,458	1,889			
Imaging & Identification	13	15	58	86	689	1,068			
Pumps & Process Solutions	39	6	20	65	3,044	924			
Climate & Sustainability Technologies	20	15	13	48	965	2,184			

		Loc	Expiration dates of leased facilities (in years)				
	North America	Europe	Asia	Other	Total	Minimum	Maximum
Engineered Products	33	14	7	1	55	1	7
Clean Energy & Fueling	25	16	10	2	53	1	11
Imaging & Identification	10	33	23	1	67	1	11
Pumps & Process Solutions	29	18	8	3	58	1	11
Climate & Sustainability Technologies	23	11	8	4	46	1	9

Our owned and leased facilities are well-maintained and suitable for our operations.

ITEM 3. LEGAL PROCEEDINGS

See Note 16 — Commitments and Contingent Liabilities in the Consolidated Financial Statements in Item 8 of this Form 10-K.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

All of our officers are elected annually at the first meeting of the Board of Directors following our annual meeting of shareholders, and are subject to removal at any time by the Board of Directors. Our executive officers as of February 11, 2022, and their positions with Dover (and, where relevant, prior business experience) for the past five years, are as follows:

Name	Age	Positions Held and Prior Business Experience
Richard J. Tobin	58	President and Chief Executive Officer (since May 2018) and Director (since August 2016); prior thereto Chief Executive Officer (from 2013 to 2018) of CNH Industrial NV.
Kimberly K. Bors	61	Senior Vice President, Human Resources (since January 2020) of Dover; prior thereto Senior Vice President and Chief Human Resources Officer of The Mosaic Company (from July 2017 to December 2018); prior thereto Senior Vice President, Human Resources & Administration for Schneider, North America at Schneider Electric (September 2014 to June 2017).
Ivonne M. Cabrera	55	Senior Vice President, General Counsel and Secretary (since January 2013) of Dover.
Brad M. Cerepak	62	Senior Vice President and Chief Financial Officer (since May 2011) of Dover.
Girish Juneja	52	Senior Vice President and Chief Digital Officer (since May 2017) of Dover; prior thereto Senior Vice President/Chief Technology Officer and General Manager of the Marketplace Solutions Business of Altisource (from January 2014 to April 2017).
David J. Malinas	47	Senior Vice President, Operations (since July 2019) of Dover; prior thereto Senior Vice President and President, Industrial Process for ITT Corporation (from June 2017 to June 2019); prior thereto Vice President and General Manager, Controlled Temperature Technologies Businesses at Thermo Fisher Scientific Inc. ("Thermo Fisher") (from March 2017 to June 2017); prior thereto Vice President, Industrial Segment at Thermo Fisher (from December 2015 to March 2017); prior thereto Vice President and General Manager, Global Chemicals Business Unit (from June 2012 to November 2015) at Thermo Fisher.
Anthony K. Kosinski	55	Vice President, Tax (since June 2016) of Dover; prior thereto Director, Domestic Tax (June 2003 to June 2016) of Dover.
James M. Moran	56	Vice President, Treasurer (since November 2015) of Dover; prior thereto Senior Vice President and Treasurer (from June 2013 to August 2015) of Navistar International Corporation ("NIC"); prior thereto Vice President and Treasurer (from 2008 to June 2013) of NIC; also served as Senior Vice President and Treasurer of Navistar, Inc. (from June 2013 to August 2015).
Ryan W. Paulson	48	Vice President & Controller (from July 2019) of Dover; prior thereto Assistant Controller, Global Consolidations & Operations Accounting (from August 2017 to July 2019); prior thereto partner at PricewaterhouseCoopers LLP (from July 2012 to June 2017).

PART II

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

Market Information and Dividends

The principal market in which Dover common stock is traded is the New York Stock Exchange.

Holders

As of February 1, 2022, there were 1,264 holders of record of Dover common stock.

Securities Authorized for Issuance Under Equity Compensation Plans

Information relating to securities authorized for issuance under our equity compensation plans is contained in Part III, Item 12 of this Form 10-K.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

In November 2020, the Company's Board of Directors approved a new standing share repurchase authorization, whereby we may repurchase up to 20 million shares beginning on January 1, 2021 through December 31, 2023. This share repurchase authorization replaced the February 2018 share repurchase authorization. Upon expiration of the February 2018 share repurchase authorization, there were 7,380,879 shares remaining.

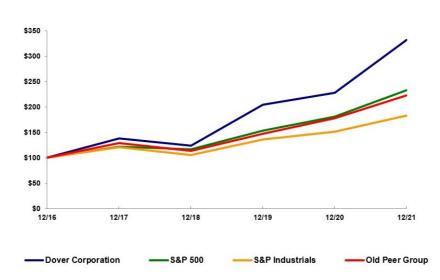
During the year ended December 31, 2021, under our November 2020 standing share repurchase authorization, which began on January 1, 2021, we purchased 182,951 shares of common stock at a total cost of \$21,637 or \$118.27 per share. No share repurchases were made under the November 2020 authorization during the three months ended December 31, 2021. As of December 31, 2021, 19,817,049 Shares remain authorized for repurchase under the November 2020 share repurchase authorization.

Performance Graph

This performance graph does not constitute soliciting material, is not deemed filed with the Securities and Exchange Commission ("SEC"), and is not incorporated by reference in any of our filings under the Securities Act of 1933 or the Exchange Act of 1934, whether made before or after the date of this Form 10-K and irrespective of any general incorporation language in any such filing, except to the extent we specifically incorporate this performance graph by reference therein.

Comparison of Five-Year Cumulative Total Return ⁺ Dover Corporation, S&P 500 Index, S&P 500 Industrials Index, Old Peer Group Index

Total Shareholder Returns



Data Source: Research Data Group, Inc

This graph assumes \$100 invested on December 31, 2016 in Dover common stock, the S&P 500 Index, the S&P 500 Industrials Index, and an Old Peer Group Index.

The 2021 new peer index group consists of the S&P 500 Industrials Index. The Old Peer Group index consists of the following 29 public companies selected by Dover.

3M Company Ametek Inc.

Carlisle Companies Inc.

Colfax Corp.
Corning Inc.
Crane Co.
Danaher Corp.

Eaton Corporation Plc Emerson Electric Co.

Enerpac Tool Group Corp.

Flowserve Corporation

Fortive Corp.

Honeywell International Inc.

IDEX Corporation Illinois Tool Works Inc. Ingersoll Rand Inc.

ITT Inc.

Johnson Controls International Plc

Lennox International Inc.

Nordson Corp.

Parker-Hannifin Corp.

Pentair Plc Regal Beloit Corp. Rockwell Automation Inc.

Snap-on Inc. SPX Flow Inc.

Teledyne Technologies Inc.

Textron Inc.

The Timken Company

⁺Total return assumes reinvestment of dividends.

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We re-examined our Old Peer Group and concluded that our diversified portfolio of businesses, which evolves in accordance with our acquisition and disposition initiatives, is better benchmarked against a broad set of industrial manufacturing peers represented by the S&P 500 Industrials Index rather than a constant group of peers, each with limited overlap with our portfolio. Moreover, the companies within the Old Peer Group have undertaken and may continue to undertake mergers, spin-offs, split-offs, or other strategic transactions that could potentially cause those companies to no longer be considered peers.

ITEM 6. [RESERVED]

Not required.

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to help the reader understand our results of operations and financial condition for the years ended December 31, 2021, 2020 and 2019. The MD&A should be read in conjunction with our Consolidated Financial Statements and Notes included in Item 8 of this Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed elsewhere in this Form 10-K, particularly in Item 1A. "Risk Factors" and in the "Special Note Regarding Forward-Looking Statements" preceding Part I of this Form 10-K.

Throughout this MD&A, we refer to measures used by management to evaluate performance, including a number of financial measures that are not defined under accounting principles generally accepted in the United States of America ("GAAP"). Please see "Non-GAAP Disclosures" at the end of this Item 7 for further detail on these financial measures. We believe these measures provide investors with important information that is useful in understanding our business results and trends. Reconciliations within this MD&A provide more details on the use and derivation of these measures.

OVERVIEW

Dover Corporation is a diversified global manufacturer and solutions provider delivering innovative equipment and components, consumable supplies, aftermarket parts, software and digital solutions and support services.

For the year ended December 31, 2021, consolidated revenue was \$7.9 billion, an increase of \$1.2 billion or 18.3%, as compared to the prior year. This growth included organic revenue growth of 15.3% driven by strong demand across all our segments reflecting robust macroeconomic trends, a favorable impact from foreign currency translation of 1.9% and 1.3% acquisition-related growth, partially offset by 0.2% impact from dispositions. Overall, customer pricing favorably impacted revenue by approximately 2.8% for the year.

Within our Engineered Products segment, revenue increased \$249.6 million, or 16.3%, from the prior year, reflecting a broad-based organic revenue growth of 14.1%, a favorable foreign currency translation of 1.6% and acquisition-related growth of 0.6%. The organic revenue growth was primarily driven by robust demand in our key end-markets most notably in our vehicle service and industrial automation businesses, and strategic pricing initiatives which partially offset significant inflationary headwinds in this segment.

Our Clean Energy & Fueling segment revenue increased \$171.9 million, or 11.6%, from prior year, reflecting organic growth of 5.8%, acquisition-related growth of 3.6% and a favorable impact from foreign currency translation of 2.2%. The organic revenue growth was driven by solid demand in our North America and Europe, the Middle East, and Africa ("EMEA") retail fueling and vehicle wash businesses, along with pricing actions aimed at mitigating material, logistics and labor cost inflation.

Our Imaging & Identification segment revenue increased \$125.2 million, or 12.1%, from the prior year, comprised of organic growth of 8.0%, a favorable impact from foreign currency translation of 2.8%, and acquisition-related growth of 1.3%. The organic revenue growth was primarily driven by solid growth in new equipment and associated services and consumables, as well as serialization software sales in our marking and coding business and ongoing demand recovery in our digital textile printing business.

Our Pumps & Process Solutions segment revenue increased \$384.6 million, or 29.1%, from the prior year, attributable to an organic growth of 26.6%, a favorable impact from foreign currency translation of 1.9% and acquisition-related growth of 0.6%. The organic revenue growth was principally driven by strong demand in the biopharma and hygienic markets especially for single use pumps and connectors used in biopharmaceutical production processes. Our industrial pumps plastics and polymer processing solutions and bearings and compression components businesses also contributed to top-line growth on strong end market demand.

Our Climate & Sustainability Technologies segment revenue increased \$292.1 million, or 22.2%, from the prior year, reflecting an organic revenue growth of 22.0% and a favorable impact from foreign currency translation of 1.3%, partially offset by a disposition related decline of 1.1%. The organic growth was driven by robust demand in all of our key end-

markets. Beverage packaging production equipment revenues increased substantially from prior year, driven by continued favorable macro trends in the global beverage industry and shift to more recyclable packaging materials. Our heat exchanger business experienced strong growth in Asia, regulation driven demand for energy-efficient heat pumps in Europe and strengthening commercial HVAC and industrial markets globally. Retail refrigeration experienced broad-based growth, driven by increased remodel activity with key supermarket customers and growing demand for our environmentally friendly natural CO2 refrigerant systems in both Europe and the U.S.

Revenue for the U.S. grew 17.1%, while revenue in Europe and Asia grew 21.1% and all other geographic markets grew 15.9% year over year. This growth was broad-based, with all our segments posting increased sales in North America, Europe, Asia and Latin America as global demand continued to improve after the impact of operational and demand headwinds from the COVID-19 experienced in the prior year.

Gross profit was \$3.0 billion for the year ended December 31, 2021, a increase of \$495.8 million, or 20.0%, as compared to the prior year. The increase was primarily due to growth in sales volume across all our segments benefited by pricing and favorable product mix partially offset by higher material, labor and logistics costs as well as production inefficiencies caused by intermittent constraints in production inputs and labor availability. Gross profit margin expanded to 37.6% for the year ended December 31, 2021 compared to 37.0% for the prior year. For further discussion related to our consolidated and segment results, see "Consolidated Results of Operations" and "Segment Results of Operations," respectively, within MD&A.

Bookings increased 35.3% over the prior year to \$9.4 billion for the year ended December 31, 2021. This included an organic bookings growth of 31.9%, a favorable impact due to foreign exchange rate of 2.1% and a 1.5% increase in acquisition-related bookings, partially offset by a 0.2% decline due to dispositions. Bookings increased organically across all our segments primarily as a result of strong recovery from the global impact on customer demand from the COVID-19 pandemic. Overall, our book-to-bill increased from the prior year to 1.19. Backlog as of December 31, 2021 was \$3.2 billion, up from \$1.8 billion from the prior year. The increase in backlog is primarily driven by higher order rates across all our segments. Backlog as of December 31, 2021 included \$0.8 billion, \$0.4 billion, \$0.2 billion, \$0.7 billion and \$1.2 billion in the Engineered Products, Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions and Climate & Sustainability Technologies segments, respectively. See definition of bookings, organic bookings, book-to-bill and backlog within "Segment Results of Operations".

During the year ended December 31, 2021, we executed rightsizing programs to further optimize operations. Rightsizing charges of \$38.4 million included restructuring charges of \$26.7 million and other costs of \$11.7 million. The expenses were primarily a result of restructuring programs initiated in 2020 and 2021.

During the year ended December 31, 2021, we made a total of nine acquisitions totaling \$1,125.1 million, net of cash acquired and including contingent consideration. See Note 3 — Acquisitions in the Consolidated Financial Statements in Item 8 of this Form 10-K for further details regarding the businesses acquired during the year.

During the year ended December 31, 2021, we completed the sale of the Unified Brands ("UB"), a wholly owned subsidiary of the Company and we disposed of our equity method investment in Race Winning Brands ("RWB"). See Note 4 — Dispositions in the Consolidated Financial Statements in Item 8 of this Form 10-K for further details regarding the businesses disposed of during the year.

During the year ended December 31, 2021, we purchased approximately 0.2 million shares of our common stock for a total cost of \$21.6 million, or \$118.27 per share. In November 2020, our Board of Directors approved a new standing share repurchase authorization, whereby we may repurchase up to 20 million shares beginning on January 1, 2021 through December 31, 2023. We also continued our 66 year history of increasing our annual dividend per share and paid a total of \$286.9 million in dividends to our shareholders.

COVID-19

The COVID-19 outbreak and associated counter-acting measures implemented by governments and businesses around the world, as well as subsequent accelerated and robust recovery in global business activity, have increased uncertainty in the global business environment and led to supply chain disruptions and shortages in global markets for commodities, logistics and labor, as well as input cost inflation.

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In response to COVID-19, we have taken and continue to take measures to protect our workforce. We have modified practices at our manufacturing locations and offices to adhere to guidance from the U.S. Centers for Disease Control and Prevention and local health and governmental authorities in our global network. We have invested at the corporate center to provide oversight, enhance coordination and ensure robust safety protocols are present across our operations. In addition, we have provided employee incentives for vaccinations and hosted vaccination clinics at a number of our facilities.

Activity in most of the end markets we serve improved throughout 2021, although demand in certain businesses such as textile printing, industrial winch and bearings and compression components is expected to take longer to recover to pre-pandemic levels with continued improvement expected in 2022. The recovery in demand has had business impacts, including increased material cost inflation (principally steel), labor availability issues and logistics costs increases. Some of our businesses have also been impacted from supplier component input availability issues. Currently our expectation is that the impact of material cost inflation, labor constraints and logistics constraints and to some extent supplier component input availability will continue into 2022.

The public health situation, continued global response measures and corresponding impacts on various markets remain fluid and uncertain and may lead to sudden changes in trajectory and outlook. We will continue to proactively respond to the situation and may take further actions that alter our business activity as may be required by governmental authorities, or that we determine are in the best interests of our employees and operations.

CONSOLIDATED RESULTS OF OPERATIONS

	Yea	% / Point Change			
(dollars in thousands, except per share figures)	 2021	2020	2019	2021 vs. 2020	2020 vs. 2019
Revenue	\$ 7,907,081	\$ 6,683,760	\$ 7,136,397	18.3 %	(6.3)%
Cost of goods and services	4,937,295	4,209,741	4,515,459	17.3 %	(6.8)%
Gross profit	 2,969,786	2,474,019	 2,620,938	20.0 %	(5.6)%
Gross profit margin	37.6 %	37.0 %	36.7 %	0.60	0.30
Selling, general and administrative expenses	1,688,278	1,541,032	1,599,098	9.6 %	(3.6)%
Selling, general and administrative expenses as a percent of revenue	21.4 %	23.1 %	22.4 %	(1.70)	0.70
Loss on assets held for sale	_	_	46,946	nm*	nm*
Operating earnings	 1,281,508	 932,987	 974,894	37.4 %	(4.3)%
Interest expense	106,319	111,937	125,818	(5.0)%	(11.0)%
Interest income	(4,441)	(3,571)	(4,526)	24.4 %	(21.1)%
Loss on extinguishment of debt	_	_	23,543	nm*	nm*
Gain on dispositions	(206,338)	(5,213)		nm*	nm*
Other income, net	(14,858)	(11,900)	(12,950)	24.9 %	(8.1)%
Earnings before provision for income taxes	 1,400,826	 841,734	 843,009	66.4 %	(0.2)%
Provision for income taxes	277,008	158,283	165,091	75.0 %	(4.1)%
Effective tax rate	 19.8 %	18.8 %	19.6 %	1.0	(0.8)
Net earnings	\$ 1,123,818	\$ 683,451	\$ 677,918	64.4 %	0.8 %
Net earnings per common share - diluted	\$ 7.74	\$ 4.70	\$ 4.61	64.7 %	2.0 %

^{*} nm: not meaningful

Revenue

For the year ended December 31, 2021, revenue increased \$1.2 billion, or 18.3% to \$7.9 billion compared with 2020, reflecting an organic growth of 15.3% driven by strong demand across all our segments reflecting robust macro-trends. Acquisition-related growth increased by 1.3% led by our Clean Energy & Fueling and Imaging & Identification segments, partially offset by a 0.2% decrease from dispositions mainly due to the sale of our UB business within Climate & Sustainability Technologies segment. Revenue also increased due to favorable foreign currency translation impact of 1.9%. Overall, customer pricing favorably impacted revenue by 2.8% for the year ended December 31, 2021.

For the year ended December 31, 2020, revenue decreased \$452.6 million, or 6.3% to \$6.7 billion compared with 2019, reflecting an organic decline of 6.6%, due to lower sales volumes due to pandemic-related impacts in our markets. Acquisition-related growth increased by 1.0% led by our Imaging & Identification and Pumps & Process Solutions segments, partially offset by a 0.7% decrease from dispositions within our Pumps & Process Solutions and Climate & Sustainability Technologies segments. Foreign currency translation had no significant impact to revenue for the year ended December 31, 2020. Overall, customer pricing favorably impacted revenue by approximately 0.7% in 2020.

Gross Profit

For the year ended December 31, 2021, gross profit increased \$495.8 million, or 20.0%, to \$3.0 billion compared with 2020, primarily due to organic revenue growth, benefits from pricing and productivity initiatives and rightsizing actions partially offset by increased material, labor and logistics costs as well as production inefficiencies caused by component and labor availability constraints. Gross profit margin increased 60 basis points to 37.6% as compared to the prior year due to benefits from pricing and product mix, productivity and restructuring actions.

For the year ended December 31, 2020, gross profit decreased \$146.9 million, or 5.6% to \$2.5 billion compared with 2019, primarily due to lower revenue as productivity initiatives including prior rightsizing programs and cost containment actions were partially offset by increased material costs and inflation and higher restructuring costs. Gross profit margin expanded 30 basis points to 37.0% as compared to the prior year due to benefits from productivity initiatives and restructuring and cost containment actions.

Selling, General and Administrative Expenses

Selling, general and administrative expenses for the year ended December 31, 2021, increased \$147.2 million, or 9.6% to \$1.7 billion compared with 2020, due to higher labor and acquisition related costs and lower discretionary spend in the prior year partially offset by lower restructuring costs of \$11.8 million. As a percentage of revenue, selling, general and administrative expenses decreased 170 basis points in 2021 to 21.4%, reflecting the increase in revenue base.

Selling, general and administrative expenses for the year ended December 31, 2020, decreased \$58.1 million, or 3.6% to \$1.5 billion compared with 2019, due to reduction in discretionary spend and benefits from rightsizing actions partially offset by higher restructuring costs of \$7.7 million and a \$3.6 million write-off of assets. As a percentage of revenue, selling, general and administrative expenses increased 70 basis points in 2020 to 23.1%, reflecting the decrease in revenue base.

Research and development costs, including qualifying engineering costs, are expensed when incurred and amounted to \$157.8 million, \$142.1 million and \$141.0 million for the years ended December 31, 2021, 2020 and 2019, respectively. The change from 2020 to 2021 reflects increased investment in hardware and software product development. These costs as a percent of revenue were 2.0%, 2.1% and 2.0% for the years December 31, 2021, 2020 and 2019, respectively.

Loss on Assets Held for Sale

On March 29, 2019, we entered into a definitive agreement to sell Finder Pompe S.r.l ("Finder") for total consideration of approximately \$23.6 million net of estimated selling costs. As of March 31, 2019, Finder met the criteria to be classified as held for sale and based on the total consideration from the sale, net of selling costs, we recorded a loss on the assets held for sale of \$46.9 million. The loss was comprised of an impairment on assets held for sale of \$21.6 million and foreign currency translation losses reclassified from accumulated other comprehensive losses to current earnings of \$25.3 million. We subsequently sold Finder on April 2, 2019, which generated total cash proceeds of \$24.2 million.

Non-Operating Items

Interest Expense, net

For the year ended December 31, 2021, interest expense, net of interest income, decreased \$6.5 million, or 6.0%, to \$101.9 million compared with 2020 primarily due to borrowings against our unsecured revolving credit facility and commercial paper in 2020 to ensure liquidity during height of pandemic-related impacts.

For the year ended December 31, 2020, interest expense, net of interest income, decreased \$12.9 million, or 10.7%, to \$108.4 million compared with 2019 primarily due to lower interest rates on new debt issued in November 2019 of €500 million of 0.750% notes due 2027 and \$300 million of 2.950% notes due 2029. The new notes repaid the old debt of €300 million of 2.125% notes and \$450 million of 4.30% notes, which carried higher interest rates.

Loss on Extinguishment of Debt

On December 4, 2019, the Company extinguished the €300 million of 2.125% notes due 2020 and the \$450 million of 4.30% notes due 2021. The Company was required to pay a make whole premium to the bondholders for the early extinguishment of debt, resulting in a loss of \$23.5 million.

Gain on Dispositions

On December 1, 2021, we completed the sale of UB, a wholly owned subsidiary of Dover. We recognized a total consideration of \$229.0 million. This sale resulted in a pre-tax gain on disposition of \$181.6 million included within the Consolidated Statements of Earnings and within the Climate & Sustainability Technologies segment for the year ended December 31, 2021. The total consideration and pre-tax gain on disposition are subject to standard working capital adjustments. The sale does not represent a strategic shift that will have a major effect on operations and financial results and, therefore, did not qualify for presentation as a discontinued operation.

Additionally, included in this line item is a \$24.7 million gain related to the disposition of our equity method investment in RWB.

Refer to Note 4 — Dispositions in the Consolidated Financial Statements in Item 8 of this Form 10-K for additional information on disposed and discontinued operations.

On March 6, 2020, we sold AMS Chino within the Climate & Sustainability Technologies segment for total consideration of \$15.4 million which included a working capital adjustment. A gain of \$5.2 million was recognized on this sale. The disposal did not represent a strategic shift in operations and, therefore, did not qualify for presentation as discontinued operations.

There were no dispositions in the year 2019 aside from the sale of Finder as described above.

Other Income, net

For the years ended December 31, 2021, 2020 and 2019, other income, net was \$14.9 million, \$11.9 million and \$13.0 million, respectively. For the year ended December 31, 2021, other income increased compared to 2020 primarily due to transition services in connection with our sale of UB, certain non-income tax credits, and investment income, partially offset by a \$12.1 million other than temporary impairment charge related to an equity method investment in 2021. For the year ended December 31, 2020, other income decreased compared to 2019 primarily due to decreased earnings from our equity method investments and increased foreign exchange losses resulting from the re-measurement and settlement of foreign currency denominated balances.

Income Taxes

Our businesses have a global presence with 40%, 45% and 47% of our pre-tax earnings in 2021, 2020 and 2019, respectively, generated in foreign jurisdictions. 2021 includes the gains on the UB and RWB dispositions, which has the effect of lowering the contributions of pre-tax earnings of foreign jurisdictions. Foreign earnings are generally subject to local country tax rates that differ from the 21.0% U.S. statutory tax rate. Our effective foreign tax rate is typically lower than the U.S. statutory tax rate.

Our effective tax rate was 19.8% for the year ended December 31, 2021, compared to 18.8% and 19.6% for the years ended December 31, 2020 and December 31, 2019, respectively. Excluding the impact of the gains on dispositions, the 2021, 2020 and 2019 rates were impacted by \$35.6 million, \$22.2 million, and \$26.6 million respectively, of favorable net discrete items primarily driven by favorable audit resolutions and the tax benefit of share award exercises.

See Note 14 — Income Taxes in the Consolidated Financial Statements in Item 8 of this Form 10-K for additional details.

Net Earnings

For the year ended December 31, 2021, net earnings increased \$440.4 million, or 64.4%, to \$1,123.8 million, or \$7.74 per share, compared with net earnings of \$683.5 million, or \$4.70 per share, for the year ended December 31, 2020. Earnings increased due to organic volume growth, favorable pricing actions and product mix and productivity actions including benefits of rightsizing actions. Additionally, earnings were favorably impacted by the gains on disposition of UB and our equity method investment in RWB. These benefits more than offset increases in material and logistics costs, most notably steel and ocean & air freight costs, higher labor costs as well as productivity shortfalls resulting from labor constraints and supply chain disruption.

For the year ended December 31, 2020, net earnings increased \$5.5 million, or 0.8%, to \$683.5 million, or \$4.70 per share, compared with net earnings of \$677.9 million, or \$4.61 per share, for the year ended December 31, 2019. Despite a revenue decline of 6.3% due to the impact of COVID-19, earnings increased due to broad-based cost containment actions, benefits from productivity and restructuring actions, a loss due to the after-tax extinguishment of debt of \$18.4 million in the prior year and a loss on assets held for sale of \$46.9 million in the prior year.

Rightsizing Activities, which includes Restructuring and Other Costs

We recorded the following rightsizing costs (benefits) for the year ended December 31, 2021:

	 Year Ended December 31, 2021											
(dollars in thousands)	gineered roducts		an Energy Fueling	I	Imaging & Identification		Pumps & Process Solutions		Climate & Sustainability Technologies		Corporate	Total
Restructuring (GAAP)	\$ 9,507	\$	3,609	\$	4,589	\$	1,911	\$	5,068	\$	2,021	\$ 26,705
Other (benefits) costs, net	(8,702)		238		1,888		(2,347)		18,146		2,508	11,731
Rightsizing (non-GAAP)	\$ 805	\$	3,847	\$	6,477	\$	(436)	\$	23,214	\$	4,529	\$ 38,436

During the year ended December 31, 2021, rightsizing activities included restructuring charges of \$26.7 million and other (benefits) costs of \$11.7 million. Restructuring expense was incurred in response to demand conditions, asset charges related to a product line exit, as well as broad-based operational efficiency initiatives focusing on footprint consolidation and IT centralization. Other (benefits) costs were comprised primarily of a \$12.1 million other than temporary impairment charge related to an equity method investment and a \$6.1 million write-off of assets in connection with an exit from certain Latin America countries in our Climate & Sustainability Technologies segment, offset by a \$9.1 million payment received for previously incurred restructuring costs related to a product line exit (\$7.3 million is classified within costs of goods and services and \$1.8 million within selling, general and administrative expenses) within our Engineering Products segment and \$3.3 million of gains on sales of assets as a result of restructuring actions in our Pumps & Process Solutions segment. These rightsizing charges were recorded in cost of goods and services, selling, general and administrative expenses, and other income, net in the Consolidated Statement of Earnings. Additional programs, beyond the scope of the announced programs may be implemented during 2022 with related restructuring charges.

We recorded the following rightsizing costs for the year ended December 31, 2020:

	 Year Ended December 31, 2020												
(dollars in thousands)	ngineered Products		n Energy Fueling		Imaging & lentification		Pumps & Process Solutions		Climate & Sustainability Technologies		Corporate		Total
Restructuring (GAAP)	\$ 10,307	\$	6,681	\$	5,946	\$	13,374	\$	4,015	\$	4,145	\$	44,468
Other costs, net	1,223		22		81		62		2,460		3,156		7,004
Rightsizing (non-GAAP)	\$ 11,530	\$	6,703	\$	6,027	\$	13,436	\$	6,475	\$	7,301	\$	51,472

During the year ended December 31, 2020, rightsizing activities included restructuring charges of \$44.5 million and other costs of \$7.0 million. Restructuring expense was comprised primarily of new actions executed in response to lower demand driven by COVID-19 as well as continuing broadbased selling, general and administrative expense reduction initiatives and broad-based operational efficiency initiatives focusing on footprint consolidation, and operational optimization and IT centralization. Other costs were comprised primarily of charges related to the restructuring actions and asset charges, principally due to a \$3.6 million write off of assets, partially offset by a \$1.7 million gain on sale of assets in our Climate & Sustainability Technologies segment. These rightsizing charges were recorded in cost of goods and services, selling, general and administrative expenses, interest expense, and other income, net in the Consolidated Statement of Earnings.

We recorded the following rightsizing costs for the year ended December 31, 2019:

Voor	Ended	Decem	har 21	2010

(dollars in thousands)	Engineered Products		Clean Energy & Fueling		Imaging & Identification		Pumps & Process Solutions		Climate & Sustainability Technologies		Corporate		Total	
Restructuring (GAAP)	\$	3,155	\$	4,943	\$	6,426	\$	5,666	\$	3,671	\$	2,961	\$	26,822
Other (benefits) costs, net		(5)		(58)		(76)		462		2,371		2,637		5,331
Rightsizing (non-GAAP)	\$	3,150	\$	4,885	\$	6,350	\$	6,128	\$	6,042	\$	5,598	\$	32,153

During the year ended December 31, 2019, rightsizing activities included restructuring charges of \$26.8 million and other costs of \$5.3 million. Restructuring expense was comprised primarily of broad-based selling, general and administrative expense reduction initiatives and broad-based operational efficiency initiatives focusing on footprint consolidation, operational optimization and IT centralization. Other costs were comprised primarily of other charges related to the restructuring actions. These rightsizing charges were recorded in cost of goods and services and selling, general and administrative expenses in the Consolidated Statement of Earnings.

See Note 11 — Restructuring Activities in the Consolidated Financial Statements in Item 8 of this Form 10-K for additional details regarding our recent restructuring activities.

SEGMENT RESULTS OF OPERATIONS

The summary that follows provides a discussion of the results of operations of each of our five operating and reportable segments (Engineered Products, Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions, and Climate & Sustainability Technologies). Each of these segments is comprised of various product and service offerings that serve multiple markets. See Note 19 — Segment Information in the Consolidated Financial Statements in Item 8 of this Form 10-K for a reconciliation of segment revenue, earnings and margin to our consolidated revenue, net earnings and margin. Segment EBITDA and segment EBITDA margin, which are presented in the segment discussion that follows, are non-GAAP measures and do not purport to be alternatives to segment earnings (EBIT) as a measure of operating performance. We believe that these non-GAAP measures are useful to investors and other users of our financial information in evaluating ongoing operating profitability as they exclude the depreciation and amortization expense related primarily to capital expenditures and acquisitions that occurred in prior years, as well as in evaluating operating performance in relation to our competitors. For further information, see "Non-GAAP Disclosures" at the end of this Item 7.

Additionally, we believe the following operational metrics are useful to investors and other users of our financial information in assessing the performance of our segments:

- Bookings represent total orders received from customers in the current reporting period. This metric is an important measure of performance and an indicator of revenue order trends.
- Organic bookings represent total orders received from customers in the current reporting period excluding the impact of foreign currency
 exchange rates and the impact of acquisitions and dispositions. The metric is an important measure of performance and an indicator of revenue
 order trends.
- Backlog represents an estimate of the total remaining bookings at a point in time for which performance obligations have not yet been satisfied. This metric is useful as it represents the aggregate amount we expect to recognize as revenue in the future.
- Book-to-bill is a ratio of the amount of bookings received from customers during a period divided by the amount of revenue recorded during that same period. This metric is a useful indicator of demand.

Engineered Products

Our Engineered Products segment provides a wide range of equipment, components, software, solutions and services vehicle aftermarket, waste handling, industrial automation, aerospace and defense, industrial winch and hoist, and fluid dispensing end-markets.

	 Years Ended December 31,					% Change			
(dollars in thousands)	 2021		2020		2019	2021 vs. 2020	2020 vs. 2019		
Revenue	\$ 1,780,827	\$	1,531,277	\$	1,697,557	16.3 %	(9.8)%		
Segment earnings (EBIT) (1)	\$ 285,511	\$	238,167	\$	291,848	19.9 %	(18.4)%		
Depreciation and amortization	48,644		42,603		41,032	14.2 %	3.8 %		
Segment EBITDA (1)	\$ 334,155	\$	280,770	\$	332,880	19.0 %	(15.7)%		
Segment margin (1)	16.0 %		15.6 %		17.2 %				
Segment EBITDA margin (1)	18.8 %		18.3 %		19.6 %				
Other measures:									
Bookings	\$ 2,113,729	\$	1,558,486	\$	1,708,321	35.6 %	(8.8)%		
Backlog	\$ 785,085	\$	463,701	\$	452,142	69.3 %	2.6 %		
Components of revenue growth (decline):									
Organic growth (decline)						14.1 %	(10.3)%		
Acquisitions						0.6 %	0.3 %		
Foreign currency translation						1.6 %	0.2 %		
Total revenue growth (decline)						16.3 %	(9.8)%		

⁽¹⁾ Segment earnings (EBIT) and segment EBITDA for 2021 include a \$24,723 gain related to the sale of RWB equity method investment.

2021 Versus 2020

Engineered Products segment revenue for the year ended December 31, 2021 increased \$249.6 million, or 16.3% compared to the prior year, comprised of a broad-based organic revenue growth of 14.1%, a favorable foreign currency translation of 1.6%, and acquisition-related growth of 0.6%. Acquisition-related growth was driven by the acquisitions of Espy, CDS Visual, and Soft-Pak. Overall, customer pricing favorably impacted revenue by approximately 4.2% in 2021.

The organic revenue growth was primarily driven by robust demand across all of our key end-markets, most notably in our vehicle service and industrial automation businesses, and strategic pricing initiatives that partially offset inflationary headwinds. Despite the strong organic growth and record high backlog levels, certain shipments in our waste handling and vehicle service groups were deferred to future quarters as a result of supply chain and labor availability constraints with the most significant impact in the fourth quarter of 2021. While we anticipate these headwinds to continue into 2022, we expect shipment volume in both businesses to improve as the year progresses.

Engineered Products segment earnings for the year ended December 31, 2021 increased \$47.3 million, or 19.9%, compared to the prior year. The increase was primarily driven by conversion on increased volumes, a \$24.7 million gain resulting from the sale of our minority interest in RWB, benefits from right-sizing actions, and favorable impact from foreign currency translation, partially offset by higher material and logistics costs, most notably steel and ocean & air freight costs, as well as plant productivity shortfalls resulting from supply chain disruption and higher labor costs. Segment margin increased from 15.6% to 16.0% as compared to the prior year.

Bookings for the year ended December 31, 2021 increased 35.6% compared to the prior year, comprised primarily of organic growth of 33.2%, a favorable impact from foreign currency translation of 2.0%, and acquisition-related growth of 0.4%. The

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organic bookings growth was broad-based, most notably in our vehicle service, waste handling, and industrial automation businesses. Segment book-to-bill was 1.19. Backlog increased 69.3% compared to the prior year.

2020 Versus 2019

Engineered Products segment revenue for the year ended December 31, 2020 decreased \$166.3 million, or 9.8% compared to the prior year, comprised of a broad-based organic revenue decline of 10.3%, partially offset by acquisition-related growth of 0.3% and a favorable foreign currency translation of 0.2%. The organic revenue decline was primarily driven by the global economic downturn precipitated by the COVID-19 pandemic beginning late in the first quarter of 2020. The impact was broad-based across the segment, with the most significant impacts in the year experienced in our waste handling, industrial winch and hoist, industrial automation and fluid dispensing businesses. Acquisition-related growth was driven by the acquisition of Soft-Pak. Overall, customer pricing favorably impacted revenue by approximately 0.3% in 2020.

Engineered Products segment earnings for the year ended December 31, 2020 decreased \$53.7 million, or 18.4%, compared to the prior year. This decrease was primarily driven by the impact of the COVID-19 pandemic on customer spending, partially offset by cost containment initiatives we executed in the year. These initiatives include actions to adjust direct and indirect manufacturing costs to current demand levels, the execution of short-term actions to reduce labor costs, the elimination of non-essential travel, third party and other expenses, the recognition of adjustments to variable compensation to reflect current conditions, the execution of selective structural cost actions aimed at streamlining our businesses, and a detailed review and re-prioritization of all planned investments and hiring plans. Segment margin decreased from 17.2% to 15.6% as compared to the prior year.

Clean Energy & Fueling

Our Clean Energy & Fueling segment provides components, equipment, and software and service solutions enabling safe transport of traditional and clean fuels and other hazardous substances along the supply chain, as well as the safe and efficient operation of convenience retail, retail fueling and vehicle wash establishments.

		Years Ended December 31,					% Change			
(dollars in thousands)	2021			2020		2019	2021 vs. 2020	2020 vs. 2019		
Revenue	\$	1,648,153	\$	1,476,282	\$	1,620,177	11.6 %	(8.9)%		
Segment comings (EDIT)	\$	271,388	\$	236,974	\$	231,873	14.5 %	2.2 %		
Segment earnings (EBIT) Depreciation and amortization	Ф	78,010	Ф	72,803	Ф	75,045	7.2 %	(3.0)%		
Segment EBITDA	\$	349,398	\$	309,777	\$	306,918	12.8 %	0.9 %		
Comment mangin		16.5 %		16.1 %		14.3 %				
Segment margin Segment EBITDA margin		21.2 %		21.0 %		18.9 %				
Other measures:										
Bookings	\$	1,742,479	\$	1,471,870	\$	1,613,764	18.4 %	(8.8)%		
Backlog	\$	383,572	\$	201,521	\$	205,842	90.3 %	(2.1)%		
Components of revenue growth (decline):										
Organic growth (decline)							5.8 %	(8.8)%		
Acquisitions							3.6 %	0.2 %		
Foreign currency translation							2.2 %	(0.3)%		
Total revenue growth (decline)							11.6 %	(8.9)%		

2021 Versus 2020

Clean Energy & Fueling segment revenue for the year ended December 31, 2021 increased \$171.9 million, or 11.6%, compared to the prior year, attributable to an organic growth of 5.8%, acquisition-related growth of 3.6%, and a favorable impact from foreign currency translation of 2.2%. Acquisition-related growth was driven by the acquisition of ICS, AvaLAN and LIQAL. The acquisitions of RegO and Acme Cryogenics late in the fourth quarter had an immaterial impact to the segment's results. Overall, customer pricing favorably impacted revenue by approximately 2.3% in 2021.

The organic revenue growth was primarily driven by solid demand in our North America and EMEA retail fueling and vehicle wash businesses, along with pricing actions aimed at mitigating material, logistics and labor cost inflation. Growth in this segment was hampered by supply chain and labor availability challenges, both within our and our customers' operations, that intensified in the second half of the year, impacting our ability to ship some customer orders.

Clean Energy & Fueling segment earnings for the year ended December 31, 2021 increased \$34.4 million, or 14.5%, compared to the prior year. The increase was primarily driven by conversion on organic revenue growth, pricing initiatives, productivity actions, and a favorable impact from acquisitions, partially offset by material and labor cost inflation. Segment margin increased to 16.5% from 16.1% in the prior year.

Bookings for the year ended December 31, 2021 increased 18.4% compared to the prior year, reflecting organic growth of 11.2%, acquisition-related growth of 4.7%, and a favorable impact from foreign currency translation of 2.5%. The organic bookings growth was primarily driven by solid global demand for retail fueling equipment and order strength in vehicle wash solutions. Segment book to bill was 1.06. Backlog increased 90.3% as compared to the prior year.

2020 Versus 2019

Clean Energy & Fueling segment revenue for the year ended December 31, 2020 decreased \$143.9 million, or 8.9%, compared to the prior year, attributable to organic decline of 8.8% and an unfavorable foreign currency translation of 0.3%, partially offset by acquisition-related growth of 0.2%. The organic revenue decline was principally driven by the adverse effects of COVID-19 and the measures taken to reduce its spread globally. The negative impact started during the latter part of the first quarter in 2020 with several mandated manufacturing plant shutdowns temporarily disrupting our global operations and supply chain, followed by a reduction in customer demand, particularly from vertically-integrated oil & gas companies. Overall, customer pricing favorably impacted revenue by approximately 1.0% in 2020.

Clean Energy & Fueling segment earnings for the year ended December 31, 2020 increased \$5.1 million, or 2.2%, compared to the prior year. The increase was driven by favorable pricing initiatives, restructuring benefits, productivity actions, selling, general and administrative cost containment, and favorable impact from foreign currency translation. These benefits were partially offset by weakened organic volume due to COVID-19. Segment margin increased 180 basis points compared to the prior year.

Imaging & Identification

Our Imaging & Identification segment supplies precision marking and coding, product traceability and digital textile printing equipment, as well as related consumables, software and services to the global packaged and consumer goods, pharmaceutical, industrial manufacturing, fashion and apparel and other end-markets.

		Yea	rs En	ided Decembe	% Change			
(dollars in thousands)		2021		2020		2019	2021 vs. 2020	2020 vs. 2019
Revenue	\$	1,163,367	\$	1,038,178	\$	1,084,471	12.1 %	(4.3)%
Segment earnings (EBIT)	\$	237,147	\$	193,473	\$	229,484	22.6 %	(15.7)%
Depreciation and amortization		38,510		38,378		30,530	0.3 %	25.7 %
Segment EBITDA	\$	275,657	\$	231,851	\$	260,014	18.9 %	(10.8)%
Segment margin		20.4 %		18.6 %		21.2 %		
Segment EBITDA margin		23.7 %		22.3 %		24.0 %		
Other measures:								
Bookings	\$	1,190,404	\$	1,065,098	\$	1,092,915	11.8 %	(2.5)%
Backlog	\$	212,098	\$	192,785	\$	125,775	10.0 %	53.3 %
Components of revenue growth (decline):								
Organic growth (decline)							8.0 %	(7.2)%
Acquisitions							1.3 %	3.9 %
Foreign currency translation							2.8 %	(1.0)%
Total revenue growth (decline)							12.1 %	(4.3)%

2021 Versus 2020

Imaging & Identification segment revenue for the year ended December 31, 2021 increased \$125.2 million, or 12.1% compared to the prior year, comprised of organic growth of 8.0%, a favorable impact from foreign currency translation of 2.8%, and acquisition-related growth of 1.3%. Acquisition-related growth was driven by the acquisitions of Solaris in the third quarter of 2020 and of Blue Bite in the second quarter of 2021. Overall, customer pricing favorably impacted revenue by approximately 0.9% in 2021.

The organic revenue growth was driven by both our marking and coding business, and our digital textile printing business. Our marking and coding business delivered solid growth in new equipment and associated services and consumables, as well as serialization software sales. Our digital textile printing business experienced demand recovery in 2021 compared to 2020 when demand for printed textiles was significantly reduced due to the impact of COVID-19 restrictions on the global apparel industry. While 2021 global apparel retail volumes improved from 2020, volumes have not yet returned to prepandemic levels and continue to be impacted by local business and travel restrictions, as well as work-from-home policies which resulted in reduced apparel demand. We continue to believe we remain favorably positioned to gain from a longer-term transition from analog to digital printing by our customers.

Imaging & Identification segment earnings for the year ended December 31, 2021 increased \$43.7 million, or 22.6%, compared to the prior year. This increase was driven by conversion on organic revenue growth, pricing initiatives and the benefits from productivity initiatives and restructuring actions, partially offset by material and labor cost inflation. As a result, segment margin increased from 18.6% to 20.4% as compared to the prior year.

Segment bookings for the year ended December 31, 2021 increased 11.8% compared to the prior year, reflecting organic growth of 7.7%, a favorable impact from foreign currency translation of 2.5%, and acquisition-related growth of 1.6%. The

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organic increase was primarily the result of strong order intake for marking and coding equipment, services and consumables, along with increased serialization software orders, as well as a recovery in demand for equipment and solutions in our digital textile printing business. Segment book-to-bill was 1.02. Backlog increased 10.0% compared to the prior year.

2020 Versus 2019

Imaging & Identification segment revenue for the year ended December 31, 2020 decreased \$46.3 million, or 4.3%, compared to the prior year, comprised of organic decline of 7.2% and an unfavorable impact from foreign currency translation of 1.0%, partially offset by acquisition-related growth of 3.9%. The organic revenue decline was primarily driven by the global economic downturn precipitated by the COVID-19 pandemic beginning late in the first quarter, which materially impacted our digital textile printing business, as government-mandated mobility restrictions forced clothing and apparel retailers to close locations, and resulted in the decline of overall demand for clothing and apparel, as fewer consumers went to schools, offices, restaurants and other gatherings. Acquisition-related growth was driven by the acquisition of Systech in the first quarter of 2020 and Solaris, which closed in the third quarter of 2020. Overall, customer pricing favorably impacted revenue by approximately 0.7% in 2020.

Imaging & Identification segment earnings for the year ended December 31, 2020 decreased \$36.0 million, or 15.7%, compared to the prior year. This decrease was primarily driven by the impact of continued reduced consumer spending due to COVID-19 on clothing, sports apparel, and other textile products that impact our digital printing customers. Partially offsetting this decrease were continued cost containment initiatives during the year. As a result, segment margin decreased from 21.2% to 18.6% as compared to the prior year.

Pumps & Process Solutions

Our Pumps & Process Solutions segment manufactures specialty pumps and flow meters, fluid connecting solutions, plastics and polymer processing equipment, and highly engineered precision components for rotating and reciprocating machines serving single-use biopharmaceutical production, diversified industrial manufacturing, polymer processing, midstream and downstream oil and gas and other end-markets.

	Years Ended December 31,					% Change			
(dollars in thousands)	2021			2020		2019	2021 vs. 2020	2020 vs. 2019	
Revenue	\$	1,708,634	\$	1,324,003	\$	1,338,528	29.1 %	(1.1)%	
Segment earnings (EBIT) (1)	\$	546,863	\$	305,276	\$	240,081	79.1 %	27.2 %	
Depreciation and amortization		69,075		72,191		67,584	(4.3)%	6.8 %	
Segment EBITDA (1)	\$	615,938	\$	377,467	\$	307,665	63.2 %	22.7 %	
Segment margin (1)		32.0 %		23.1 %		17.9 %			
Segment EBITDA margin (1)		36.0 %		28.5 %		23.0 %			
Other measures:									
Bookings	\$	2,023,061	\$	1,334,338	\$	1,393,830	51.6 %	(4.3)%	
Backlog	\$	688,931	\$	390,238	\$	353,073	76.5 %	10.5 %	
Components of revenue growth (decline):									
Organic growth (decline)							26.6 %	(2.3)%	
Acquisitions							0.6 %	1.1 %	
Dispositions							— %	(0.5)%	
Foreign currency translation							1.9 %	0.6 %	
Total revenue growth (decline)							29.1 %	(1.1)%	

⁽¹⁾ Segment earnings (EBIT) and segment EBITDA for 2019 include a \$46,946 loss on assets held for sale for Finder.

2021 Versus 2020

Pumps & Process Solutions segment revenue for the year ended December 31, 2021 increased \$384.6 million, or 29.1%, compared to the prior year, attributable to organic growth of 26.6%, a favorable impact from foreign currency translation of 1.9%, and acquisition-related growth of 0.6%. Acquisition related growth was primarily driven by the acquisition of Quantex and one other immaterial acquisition. Overall, customer pricing favorably impacted revenue by approximately 1.8% in 2021.

The organic revenue growth was primarily driven by robust demand in the biopharma and hygienic markets, where we saw strong demand for single use pumps and connectors used in biopharmaceutical production processes. Our industrial pumps and our plastics and polymer processing solutions businesses also contributed to top-line growth responding to strong end market demand, despite experiencing supply chain constraints and customer delivery challenges that accelerated in the second half of the year. Revenue in bearings and compression components saw solid growth amidst an ongoing recovery in their end market demand.

Pumps & Process Solutions segment earnings for the year ended December 31, 2021 increased \$241.6 million, or 79.1%, compared to the prior year. This increase was predominantly the result of strong conversion on revenue growth, favorable product mix, pricing initiatives, and productivity actions, partially offset by material and labor cost inflation, and investments in growth. Segment margin increased to 32.0% from 23.1% in the prior year, an increase of 890 basis points.

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Bookings for the year ended December 31, 2021 increased 51.6% compared to the prior year, reflecting an organic growth of 48.2%, a favorable impact from foreign currency translation of 2.3%, and acquisition-related growth of 1.1%. The organic bookings growth was driven by significant growth in the biopharma and hygienic pumps and connectors markets, as well as strong order intake in industrial pumps and plastics and polymer processing solutions, and demand recovery in bearings and compression components. Segment book to bill was 1.18. Backlog increased 76.5% compared to the prior year primarily driven by our biopharma and hygienic markets, along with strength from our plastics and polymer processing solutions and industrial pumps businesses.

2020 Versus 2019

Pumps & Process Solutions segment revenue for the year ended December 31, 2020 decreased \$14.5 million, or 1.1%, compared to the prior year, attributable to organic decline of 2.3% and a 0.5% decrease from a disposition, partially offset by acquisition-related growth of 1.1% and a favorable impact from foreign currency translation of 0.6%. The organic revenue decline was principally driven by continued comparable weakness in demand for compression components and aftermarket services due to lower activity in the North America upstream, midstream and downstream energy sector, as well as continued slower demand for industrial pumps due to pandemic-related disruptions. Overall, customer pricing favorably impacted revenue by approximately 1.0% in 2020.

Pumps & Process Solutions segment earnings for the year ended December 31, 2020 increased \$65.2 million, or 27.2%, compared to the prior year. Segment earnings for the year ended December 31, 2019 included a loss on assets held for sale for Finder of \$46.9 million. Excluding the loss, segment earnings increased as a result of pricing initiatives, productivity actions, restructuring benefits, and selling, general and administrative cost reductions. These benefits were partially offset by the global impact of COVID-19 on volume and an unfavorable impact from material and inflation costs. Segment margin increased to 23.1% from 17.9% in the prior year, an increase of 520 basis points.

Climate & Sustainability Technologies

Our Climate & Sustainability Technologies segment is a provider of innovative and energy-efficient equipment and systems that serve the commercial refrigeration, heating and cooling and beverage container-making equipment markets.

	Yea	rs En	ided Decembe	% Change			
(dollars in thousands)	 2021		2020		2019	2021 vs. 2020	2020 vs. 2019
Revenue	\$ 1,608,175	\$ 1,316,090 S		\$	1,396,617	22.2 %	(5.8)%
Segment earnings (EBIT) (1)	\$ 322,622	\$	102,872	\$	118,832	213.6 %	(13.4)%
Depreciation and amortization	48,634		46,541		51,360	4.5 %	(9.4)%
Segment EBITDA (1)	\$ 371,256	\$	149,413	\$	170,192	148.5 %	(12.2)%
Segment margin (1)	20.1 %		7.8 %		8.5 %		
Segment EBITDA margin (1)	23.1 %		11.4 %		12.2 %		
Other measures:							
Bookings	\$ 2,317,000	\$	1,510,499	\$	1,446,755	53.4 %	4.4 %
Backlog	\$ 1,174,479	\$	510,498	\$	320,577	130.1 %	59.2 %
Components of revenue growth (decline):							
Organic growth (decline)						22.0 %	(3.0)%
Dispositions						(1.1)%	(2.9)%
Foreign currency translation						1.3 %	0.1 %
Total revenue growth (decline)					- -	22.2 %	(5.8)%

⁽¹⁾ Segment earnings (EBIT) and segment EBITDA for 2021 include a \$181,615 gain on the disposition of UB, a \$12,073 other than temporary impairment charge related to an equity method investment, and a \$6,072 write-off of assets incurred in connection with an exit from certain Latin America countries. 2020 includes a \$5,213 gain on the sale of the AMS Chino and a \$3,640 write-off of assets.

2021 Versus 2020

Climate & Sustainability Technologies segment revenue for the year ended December 31, 2021 increased \$292.1 million, or 22.2%, compared to the prior year, reflecting an organic revenue growth of 22.0% and a favorable impact from foreign currency translation of 1.3%, partially offset by a disposition related decline of 1.1%. Overall, customer pricing favorably impacted revenue by approximately 4.1% in 2021.

The organic revenue growth was principally driven by robust demand across all of our end-markets. Beverage packaging equipment revenues increased substantially from prior year, driven by continued favorable macro trends in the global beverage industry, which include beverage innovations and producers increasingly shifting to highly recyclable aluminum containers for environmental sustainability and merchandising benefits offered by modern aluminum containers. Our heat exchanger business experienced strong growth across all regions, fueled by regulation-driven heat pump demand in Europe, robust demand in Asia, and strengthening commercial HVAC and industrial markets globally. Retail refrigeration experienced broad-based growth, driven by increased remodel activity with key supermarket customers and growing demand for our environmentally friendly natural refrigerant systems in both Europe and the U.S. Prior to the sale of UB in the fourth quarter of 2021, commercial foodservice equipment revenues improved over the prior year, as many key restaurant chain customers resumed store investment programs once government mandated COVID-19 restrictions eased in 2021.

Climate & Sustainability Technologies segment earnings for the year ended December 31, 2021 increased \$219.8 million, or 213.6%, compared to the prior year. Segment margin increased to 20.1% from 7.8% in the prior year due to a \$181.6 million gain on disposition of UB that occurred in the fourth quarter, increased volumes, favorable mix, improved operational efficiencies and benefits from prior restructuring programs; partially offset by a \$12.1 million other than temporary impairment charge related to an equity method investment, a \$6.1 million write-off of assets incurred in connection with an

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exit from certain Latin America countries, increased material and logistics costs, most notably metals, and plant productivity shortfalls resulting from supply chain disruption, most notably from intermittent shortages of insulation foam materials throughout the year, and labor availability constraints, most significantly in our retail refrigeration business.

Bookings for the year ended December 31, 2021 increased 53.4% compared to the prior year, reflecting organic growth of 53.3% and a favorable impact from foreign currency translation of 1.2%, partially offset by a 1.1% impact from the sale of UB. The organic bookings growth was primarily driven by continued supermarket remodel programs in retail refrigeration, strong demand for brazed heat exchangers and increased project activity for beverage packaging equipment. Segment book to bill for the full year was 1.44. Backlog increased 130.1% over the prior year, principally driven by our aluminum can-shaping equipment business as well as an increase in our retail refrigeration and heat exchanger businesses.

2020 Versus 2019

Climate & Sustainability Technologies segment revenue for the year ended December 31, 2020 decreased \$80.5 million, or 5.8%, compared to the prior year, reflecting an organic revenue decline of 3.0%, a disposition related decline of 2.9%, partially offset by a favorable impact from foreign currency translation of 0.1%. The organic revenue decline was principally driven by the impact of COVID-19 on a global basis as government actions to contain the spread of the virus, such as mandated plant shutdowns and restaurant curtailments, resulted in deferred customer orders and operational inefficiencies across the segment. Overall, customer pricing favorably impacted revenue by approximately 0.3% in 2020.

Climate & Sustainability Technologies segment earnings for the year ended December 31, 2020 decreased \$16.0 million, or 13.4%, compared to the prior year. Segment margin decreased to 7.8% from 8.5% in the prior year due to substantially reduced revenues and operational inefficiencies associated with COVID-19, increased restructuring expenses and a \$3.6 million write-off of assets. This was partially offset by the \$5.2 million gain on sale from the disposition of AMS Chino, a \$1.7 million gain on sale of assets, and other broad-based cost reduction activities.

FINANCIAL CONDITION

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Significant factors affecting liquidity are cash flows generated from operating activities, capital expenditures, acquisitions, dispositions, dividends, repurchase of outstanding shares, adequacy of available commercial paper and bank lines of credit and the ability to attract long-term capital with satisfactory terms. We generate substantial cash from the operations of our businesses and remain in a strong financial position, with sufficient liquidity available for reinvestment in existing businesses and strategic acquisitions.

Cash Flow Summary

The following table is derived from our Consolidated Statements of Cash Flows:

	Years Ended December 31,				
Cash Flows from Operations (in thousands)	2021	2020		2019	
Net cash flows provided by (used in):					
Operating activities	\$ 1,115,865	\$ 1,104,810	\$	945,306	
Investing activities	(992,753)	(481,379)		(384,255)	
Financing activities	(249,880)	(506,290)		(558,042)	

Operating Activities

Cash provided by operating activities for the year ended December 31, 2021 increased compared to 2020. This increase was primarily driven by higher earnings net of non-cash adjustments and increases to accrued expenses, partially offset by our investment in working capital of \$307.1 million.

Cash provided by operating activities for the year ended December 31, 2020 increased \$159.5 million compared to 2019. This increase was driven primarily by improvements in working capital of \$89.4 million, payroll tax deferrals under the U.S. CARES Act of \$31.6 million and advanced payments received on contracts, partially offset by lower net earnings, excluding the impact of depreciation, amortization, loss on assets held for sale and gain on a disposition.

Pension and Other Post-Retirement Activity: Total cash used in conjunction with pension plans during 2021 was \$14.4 million, including contributions to our international pension plans and payments of benefits under our non-qualified supplemental pension plans.

The funded status of our U.S. qualified defined benefit pension plan is dependent upon many factors, including returns on invested assets, the level of market interest rates and the level of funding. We contribute cash to our plans at our discretion, subject to applicable regulations and minimum contribution requirements. Due to the overfunded status of this plan, the Company did not make contributions in 2021, 2020 or 2019 and does not expect to make contributions in the near term.

Our international pension plans are located in regions where often it is not economically advantageous to pre-fund the plans due to local regulations. Total cash payments, which include contributions and direct benefit payments to nonfunded plans, to ongoing international defined benefit pension plans in 2021, 2020 and 2019 totaled \$8.1 million, \$7.3 million and \$7.2 million, respectively. In 2022, we expect to make cash payments of approximately \$7.7 million related to our non-U.S. plans.

Our non-qualified supplemental pension plans are funded through Company assets as benefits are paid. In 2021, 2020 and 2019 a total of \$6.3 million, \$12.3 million, and \$13.6 million in benefits were paid under these plans, respectively. See Note 17 — Employee Benefit Plans in the Consolidated Financial Statements in Item 8 of this Form 10-K for further discussion regarding our post-retirement plans. In 2022, we expect to make cash payments of approximately \$4.8 million to our non-qualified U.S. plans.

Adjusted Working Capital: We believe adjusted working capital (a non-GAAP measure calculated as accounts receivable, plus inventory, less accounts payable) provides a meaningful measure of our operational results by showing changes caused solely by revenue.

Adjusted Working Capital (dollars in thousands)	Decei	nber 31, 2021	De	ecember 31, 2020
Accounts receivable	\$	1,347,514	\$	1,137,223
Inventories		1,191,095		835,804
Less: Accounts payable		1,073,568		853,942
Adjusted working capital	\$	1,465,041	\$	1,119,085

Adjusted working capital increased from December 31, 2020 by \$346.0 million, or 30.9%, to \$1.5 billion at December 31, 2021, which reflected an increase in accounts receivable of \$210.3 million, an increase in inventory of \$355.3 million and an increase in accounts payable of \$219.6 million. These amounts include the effects of acquisitions, dispositions and foreign currency translation. We continue to focus on improving working capital management. Accounts receivable increased compared to the prior year as a result of higher revenue. We increased inventory balances throughout the year to support growing sales and backlog, and also to mitigate potential inventory constraints given the continuing disrupted and constrained supply chain. These factors also led to an increase in accounts payable.

We facilitate the opportunity for suppliers to participate in voluntary supply chain financing ("SCF") programs with participating financial institutions. Participating suppliers have the ability to sell receivables due from us to SCF financial institutions at the discretion of both the suppliers and the SCF financial institutions, at no economic impact to the Company. The Company and our suppliers agree on commercial terms, including payment terms, for the goods and services we procure regardless of whether the supplier participates in SCF. For participating suppliers, our responsibility is limited to making all payments to the SCF financial institutions on the terms originally negotiated with the supplier, irrespective of whether the supplier elects to sell receivables to the SCF financial institution. The SCF financial institution pays the supplier on the invoice due date for any invoices that were not previously sold by the supplier to the SCF financial institution. Thus, suppliers using SCF have additional potential flexibility in managing their liquidity by accelerating, at their option and cost, collection of receivables due from Dover.

Outstanding payments related to SCF programs are recorded within accounts payable in our consolidated balance sheets. As of December 31, 2021 and 2020, amounts due to financial institutions for suppliers using SCF were approximately \$211 million and \$139 million, respectively. SCF related payments are classified as a reduction to cash flows from operations. Amounts paid to SCF financial institutions were approximately \$825 million during the year ended December 31, 2021 and \$605 million during the years ended December 31, 2020 and 2019.

Investing Activities

Cash flow from investing activities is derived from cash outflows for capital expenditures and acquisitions, partially offset by cash inflows from proceeds from the sale of businesses, and property, plant and equipment. The majority of the activity in investing activities was comprised of the following:

- Acquisitions: In 2021, we deployed \$1,112.1 million, excluding contingent consideration of \$13.0 million, to acquire nine businesses. In comparison, we acquired six businesses in 2020 for an aggregate purchase price of approximately \$335.8 million. Total acquisition spend in 2019 was \$215.7 million and was comprised of three businesses. See Note 3 Acquisitions in the Consolidated Financial Statements in Item 8 of this Form 10-K for additional information with respect to recent acquisitions.
- *Proceeds from sale of businesses*: In 2021, we generated cash proceeds of \$275.0 million, due to the sale of UB within the Climate & Sustainability Technologies segment and the sale of our RWB equity method investment within the Engineered Products segment. Cash proceeds of \$15.4 million in 2020 was due to the sale of AMS Chino within the Climate & Sustainability Technologies segment. In 2019, we generated cash proceeds of \$24.2 million due to the sale of Finder.
- *Capital spending:* Capital expenditures, primarily to support growth initiatives, productivity and new product launches, were \$171.5 million in 2021, \$165.7 million in 2020 and \$186.8 million in 2019. Our capital expenditures increased \$5.8 million in 2021 compared to 2020 in line with our plan to support growth capacity, digitization,

innovation, and productivity. Our capital expenditures decreased \$21.1 million in 2020 compared to 2019 as we temporarily reduced our capital spending plan as a result of COVID-19, without deferring strategic priorities.

We anticipate that capital expenditures and any additional acquisitions we make in 2022 will be funded from available cash and internally generated funds and, if necessary, through the issuance of commercial paper, or by accessing the public debt or equity markets. We estimate capital expenditures in 2022 to range from \$200 million to \$220 million.

Financing Activities

Our cash flow from financing activities generally relates to the use of cash for purchases of our common stock and payment of dividends, offset by net borrowing activity. The majority of financing activity was attributed to the following:

- Long-term debt, commercial paper and notes payable, net: During 2021, we received proceeds of \$105.0 million from commercial paper borrowings to fund a portion of our acquisitions. During 2020, we used \$84.7 million to pay off commercial paper borrowings. During 2019, we issued €500 million of 0.750% euro-denominated notes due 2027 and \$300 million of 2.950% notes due 2029. The proceeds from the sale of euro-denominated notes of €494.7 million, net of discounts and issuance costs, were used in part to redeem the €300 million 2.125% notes due 2020. The proceeds from the sale of notes of \$296.9 million, net of discounts and issuance costs, and the remaining funds from the sale of the euro-denominated notes, were used to fund the redemption of the \$450 million 4.30% notes due 2021. The early extinguishment of debt resulted in a pre-tax loss of \$23.5 million. Net borrowings decreased by \$93.3 million in 2019 due to the issuance of debt, early extinguishment of debt, and decrease in borrowings from commercial paper.
- *Repurchase of common stock:* During the year ended December 31, 2021, we repurchased 182,951 shares of common stock at a total cost of \$21.6 million. During the year ended December 31, 2020, we repurchased 979,165 shares of common stock at a total cost of \$106.3 million. During the year ended December 31, 2019, we repurchased 1,343,622 shares of common stock at a total cost of \$143.3 million.
- *Dividend payments:* Total dividend payments to common shareholders were \$286.9 million in 2021, \$284.3 million in 2020 and \$282.2 million in 2019. Our dividends paid per common share increased 1% to \$1.99 per share in 2021 compared to \$1.97 per share in 2020, which represents the 66th consecutive year that our dividend per share has increased. The number of common shares outstanding increased from 2020 to 2021 as share issuances slightly exceeded share repurchases.
- *Net Proceeds from the exercise of share-based awards:* Payments to settle tax obligations on share exercises were \$41.9 million, \$28.5 million and \$37.4 million in 2021, 2020 and 2019, respectively. The increase from 2020 to 2021 is primarily due to the increase in the number of shares exercised and an increase in the average stock price compared to the prior year period.

Liquidity and Capital Resources

Free Cash Flow

In addition to measuring our cash flow generation and usage based upon the operating, investing and financing classifications included in the Consolidated Statements of Cash Flows, we also measure free cash flow (a non-GAAP measure) which represents net cash provided by operating activities minus capital expenditures. We believe that free cash flow is an important measure of operating performance because it provides management and investors a measurement of cash generated from operations that may be available for mandatory payment obligations and investment opportunities, such as funding acquisitions, paying dividends, repaying debt and repurchasing our common stock.

The following table reconciles our free cash flow to cash flow provided by operating activities:

	Years Ended December 31,					
Free Cash Flow (dollars in thousands)		2021	2020			2019
Cash flow provided by operating activities	\$	1,115,865	\$	1,104,810	\$	945,306
Less: Capital expenditures		(171,465)		(165,692)		(186,804)
Free cash flow	\$	944,400	\$	939,118	\$	758,502
Free cash flow as a percentage of revenue		11.9 %		14.1 %		10.6 %
Free cash flow as a percentage of earnings		84.0 %		137.4 %		111.9 %

For 2021, we generated free cash flow of \$944.4 million, representing 11.9% of revenue and 84.0% of earnings. Free cash flow in 2020 was \$939.1 million or 14.1% of revenue and 137.4% of earnings. Free cash flow in 2019 was \$758.5 million, or 10.6% of revenue and 111.9% of earnings. The full year increase in 2021 free cash flow reflects higher cash flow provided by operations, as previously noted, partially offset by higher investments in capital expenditures compared to the prior year. The decrease in free cash flow as a percentage of earnings from 2020 to 2021 was primarily due to higher net earnings, including the impact of non-cash gains on dispositions. The 2020 increase in free cash flow compared to 2019 reflects higher cash flow provided by operations primarily due to improvements in working capital, permitted deferrals of tax payments and advanced payments received on contracts.

Capitalization

We use commercial paper borrowings for general corporate purposes, including the funding of acquisitions and the repurchase of our common stock. As of December 31, 2021, we maintained a \$1 billion five-year unsecured revolving credit facility (the "Credit Agreement") with a syndicate of banks, which will expire on October 4, 2024. This facility is used primarily as liquidity back-up for our commercial paper program and for general corporate purposes.

Beginning in early-to-mid-March 2020, the commercial paper market began to experience very high levels of volatility as a result of COVID-19 related uncertainties. Volatility was most pronounced for "Tier-2" issuers, such as Dover, and impacted both market access and pricing. As a result, on March 16, 2020, the Company borrowed \$500 million under the Credit Agreement. Proceeds from the borrowing were used to repay all of the Company's outstanding commercial paper and for general corporate purposes. We subsequently repaid the \$500 million in the second quarter of 2020 using proceeds from commercial paper as volatility in the commercial paper market stabilized and we resumed borrowing commercial paper.

The Company may elect to have loans under the Credit Agreement which bear interest at a base rate plus a specified applicable margin. Under this facility, we are required to pay a facility fee and to maintain an interest coverage ratio of consolidated EBITDA to consolidated net interest expense of not less than 3.0 to 1. We were in compliance with this covenant and our other long-term debt covenants at December 31, 2021 and had a coverage ratio of 17.6 to 1. We are not aware of any potential impairment to our liquidity and expect to remain in compliance with all of our debt covenants. Additionally, our earliest long-term debt maturity is in 2025.

We also have a current shelf registration statement filed with the SEC that allows for the issuance of additional debt securities that may be utilized in one or more offerings on terms to be determined at the time of the offering. Net proceeds of any offering would be used for general corporate purposes, including repayment of existing indebtedness, capital expenditures and acquisitions.

At December 31, 2021, our cash and cash equivalents totaled \$385.5 million, of which approximately \$257.5 million was held outside the United States. At December 31, 2020, our cash and cash equivalents totaled \$513.1 million, of which \$345.9 million was held outside the United States. Cash and cash equivalents are held primarily in bank deposits with highly rated banks. We regularly hold cash in excess of near-term requirements in bank deposits or invest the funds in government money market instruments or short-term investments, which consist of investment grade time deposits with original maturity dates at the time of purchase of no greater than three months.

We utilize the net debt to net capitalization calculation (a non-GAAP measure) to assess our overall financial leverage and capacity and believe the calculation is useful to investors for the same reason. Net debt represents total debt minus cash and cash equivalents. Net capitalization represents net debt plus stockholders' equity. The following table provides a reconciliation of net debt to net capitalization to the most directly comparable GAAP measures:

er 31, 2019
_
84,700
84,700
2,985,716
3,070,416
(397,253)
2,673,163
3,032,660
5,705,823
46.8 %

Our net debt to net capitalization ratio decreased to 39.5% at December 31, 2021 compared to 43.4% at December 31, 2020. The decrease in this ratio was driven primarily by the increase in stockholders' equity of \$803.8 million for the period as a result of increase in current earnings of \$1,123.8 million, offset by \$286.9 million of dividends paid and \$21.6 million in share repurchases. Net debt increased \$143.2 million during the period primarily due to a decrease of \$127.6 million in cash and cash equivalents and an increase in total debt as a result of an increase in commercial paper.

Our net debt to net capitalization ratio decreased to 43.4% at December 31, 2020 compared to 46.8% at December 31, 2019. The decrease in this ratio was driven primarily by the increase in stockholders' equity of \$353.1 million for the period as a result of increase in current earnings of \$683.5 million, offset by \$284.3 million of dividends paid and \$106.3 million in share repurchases. Net debt decreased \$77.4 million during the period primarily due to an increase of \$115.8 million in cash and cash equivalents and a reduction in commercial paper, partially offset by an increase in long-term debt as a result of foreign currency translation on our euro-denominated notes.

Our ability to obtain debt financing at comparable risk-based interest rates is partly a function of our existing cash flow-to-debt and debt-to-capitalization levels as well as our current credit standing. Set forth below are our credit ratings, as of December 31, 2021, which were independently developed by the respective credit agencies. The Moody's rating and outlook were issued in December 2018, and the Standard & Poor's rating was issued in December 2017 and the outlook was most recently revised in May 2021.

	Snort-Term Rating	Long-Term Rating	Outlook
Moody's	P-2	Baa1	Stable
Standard & Poor's	A-2	BBB+	Stable

As of December 31, 2021, we had approximately \$155.9 million outstanding in letters of credit, surety bonds, and performance and other guarantees with financial institutions, which expire on various dates through 2029. These letters of credit and bonds are primarily issued as security for insurance, warranty and other performance obligations. In general, we would only be liable for the amount of these guarantees in the event of default in the performance of our obligations, the probability of which we believe is remote.

Our estimate of future interest payments on long-term debt is \$1,140.5 million based on the interest rates in effect as of December 31, 2021.

Operating cash flow and access to capital markets are expected to satisfy our various cash flow requirements, including acquisitions, capital expenditures, purchase obligations, and lease obligations. See Note 7 — Leases in the Consolidated

Financial Statements in Item 8 of this Form 10-K for additional details on lease obligations. Acquisition spending and/or share repurchases could potentially increase our debt.

We believe that existing sources of liquidity are adequate to meet anticipated funding needs at current risk-based interest rates for the foreseeable future.

Financial Instruments and Risk Management

The diverse nature of our businesses' activities necessitates the management of various financial and market risks, including those related to changes in interest rates, foreign currency exchange rates and commodity prices. We periodically use derivative financial instruments to manage some of these risks. We do not hold or issue derivative instruments for trading or speculative purposes. We are exposed to credit loss in the event of nonperformance by counterparties to our financial instrument contracts; however, nonperformance by these counterparties is considered unlikely as our policy is to contract with highly-rated, diversified counterparties.

Interest Rate Exposure

As of December 31, 2021, and during the three year period then ended, we did not have any open interest rate swap contracts; however, we may in the future enter into interest rate swap agreements to manage our exposure to interest rate changes. We issue commercial paper, which exposes us to changes in variable interest rates; however, maturities are typically three months or less so a change in rates over this period would not have a material impact on our pre-tax earnings.

We consider our current risk related to market fluctuations in interest rates to be minimal since our debt is largely long-term and fixed in nature. Generally, the fair market value of fixed-interest rate debt will increase as interest rates fall and decrease as interest rates rise. A 100 basis point increase in market interest rates would decrease the 2021 year-end fair value of our long-term debt by approximately \$244.1 million. However, since we have no plans to repurchase our outstanding fixed-rate instruments before their maturities, the impact of market interest rate fluctuations on our long-term debt does not affect our results of operations or financial position.

Foreign Currency Exposure

We conduct business in various non-U.S. countries, including Canada, substantially all of the European countries, Mexico, Brazil, China, India and other Asian countries. Therefore, we have foreign currency risk relating to receipts from customers, payments to suppliers and intercompany transactions denominated in foreign currencies. We will occasionally use derivative financial instruments to offset such risks, when it is believed that the exposure will not be limited by our normal operating and financing activities. We have formal policies to mitigate risk in this area by using fair value and/or cash flow hedging programs.

Changes in the value of the currencies of the countries in which we operate affect our results of operations, financial position and cash flows when translated into U.S. dollars, our reporting currency. The strengthening of the U.S. dollar could result in unfavorable translation effects as the results of foreign operations are translated into U.S. dollars. We have generally accepted the exposure to exchange rate movements relative to our investment in non-U.S. operations. We may, from time to time, for a specific exposure, enter into fair value hedges.

Additionally, we have designated the €600 million and €500 million of euro-denominated notes issued November 9, 2016 and November 4, 2019, respectively, as a hedge of our net investment in euro-denominated operations. We had also designated the €300 million notes due in 2020 as a net investment hedge prior to our redemption of the notes. Due to the high degree of effectiveness between the hedging instruments and the exposure being hedged, fluctuations in the value of the euro-denominated debt due to exchange rate changes are offset by changes in the net investment. Accordingly, changes in the value of the euro-denominated debt are recognized in the cumulative translation adjustment section of other comprehensive income to offset changes in the value of the net investment in euro-denominated operations. Due to the fluctuations of the euro relative to the U.S. dollar, the U.S. dollar equivalent of this debt increases or decreases, resulting in the recognition of a pre-tax gain (loss) of \$94.0 million, \$(119.3) million and \$22.4 million in other comprehensive income for the years ended December 31, 2021, 2020, and 2019 respectively.

Commodity Price Exposure

Some of our businesses are exposed to volatility in the prices of certain commodities, such as aluminum, steel, copper and various precious metals, among others. Our primary exposure to commodity pricing volatility relates to the use of these materials in purchased component parts or the purchase of raw materials. Markets for multiple raw materials, most notably steel, saw significant cost increases throughout 2021, which we partially offset through price increases and other levers. When possible, we maintain long-term fixed price contracts on raw materials and component parts; however, we are prone to exposure as these contracts expire.

Critical Accounting Policies and Estimates

Our consolidated financial statements and related financial information are based on the application of U.S. GAAP. The preparation of financial statements in accordance with U.S. GAAP requires the use of estimates, assumptions, judgments and interpretations of accounting principles that affect the amount of assets, liabilities, revenue and expenses on the consolidated financial statements. These estimates also affect supplemental information contained in our disclosures, including information regarding contingencies, risk and our financial condition. The significant accounting policies used in the preparation of our consolidated financial statements are discussed in Note 1 — Description of Business and Summary of Significant Accounting Policies in the Consolidated Financial Statements in Item 8 of this Form 10-K. The accounting assumptions and estimates discussed in the section below are most critical to an understanding of our financial statements because they inherently involve significant judgments and estimates. We believe our use of estimates and underlying accounting assumptions conforms to U.S. GAAP and is consistently applied. We evaluate our critical accounting estimates and judgments on an ongoing basis and update them as necessary. Management has discussed our critical accounting policies and estimates with the audit committee of the Board of Directors.

Revenue Recognition - The majority of our revenue is generated through the manufacture and sale of a broad range of specialized products and components, with revenue recognized upon transfer of title and risk of loss, which is generally upon shipment. Service revenue represents less than 5% of our total revenue and is recognized as the services are performed. In limited cases, our revenue arrangements with customers require delivery, installation, testing, certification, or other acceptance provisions to be satisfied before revenue is recognized. We include shipping costs billed to customers in revenue and the related shipping costs in cost of goods and services. See Note 2 — Revenue in the Consolidated Financial Statements in Item 8 of this Form 10-K for further details.

Inventories - Inventories are stated at the lower of cost, determined on the first-in, first-out (FIFO) basis, or net realizable value. An immaterial portion of domestic inventories are stated at cost, determined on the last-in, first-out (LIFO) basis, which is less than market value. Under certain market conditions, estimates and judgments regarding the valuation of inventories are employed by us to properly value inventories.

Goodwill and Other Intangible Assets - We have significant goodwill and intangible assets on our consolidated balance sheets as a result of current and past acquisitions. The valuation and classification of these assets and the assignment of useful lives involve significant judgments and the use of estimates. In addition, the testing of goodwill and intangibles for impairment requires significant use of judgment and assumptions, particularly as it relates to the determination of fair value. Our indefinite-lived intangible assets and reporting units are tested and reviewed for impairment on an annual basis during the fourth quarter, or more frequently when indicators of impairment exist, when some portion but not all of a reporting unit is disposed of or classified as assets held for sale, or when a change in the composition of reporting units occurs for other reasons, such as a change in segments.

When performing an impairment test, we estimate fair value using the income-based valuation method. Under the income-based valuation method, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. We use our internal forecasts to estimate future cash flows and include an estimate of long-term future growth rate based on our most recent views of the long-term outlook for each reporting unit. Actual results may differ from these estimates. The discount rates used in these analyses vary by reporting unit and are based on a capital asset pricing model and published relevant industry rates. We use discount rates commensurate with the risks and uncertainties inherent to each reporting unit and in our internally developed forecasts. Discount rates used in our 2021 reporting unit valuations ranged from 8.0% to 9.0%.

We performed a quantitative goodwill impairment test for each of our reporting units in the fourth quarter of 2021, concluding that the fair values of each reporting unit substantially exceeded its carrying values. As such, no goodwill impairment was recognized. While we believe the assumptions used in the 2021 impairment analysis are reasonable and representative of expected results and reflective of a market participant, actual results may differ from expectations.

Employee Benefit Plans - The valuation of our pension and other post-retirement plans requires the use of assumptions and estimates that are used to develop actuarial valuations of expenses and assets/liabilities. Inherent in these valuations are key assumptions, including discount rates, investment returns, projected salary increases and benefits and mortality rates. Annually, we review the actuarial assumptions used in our pension reporting and compare them with external benchmarks to ensure that they accurately account for our future pension obligations. Changes in assumptions and future investment returns could potentially have a material impact on our pension expense and related funding requirements. Our expected long-term rate of return on plan assets is reviewed annually based on actual and forecasted returns, economic trends and portfolio allocation. Our discount rate assumption is determined by developing a yield curve based on high quality corporate bonds with maturities matching the plans' expected benefit payment streams. The plans' expected cash flows are then discounted by the resulting year-by-year spot rates. As disclosed in Note 17 — Employee Benefit Plans to the Consolidated Financial Statements in Item 8 of this Form 10-K, the 2021 weighted-average discount rate used to measure our qualified defined benefit obligations ranged from 1.18% to 2.95%, a general increase from the 2020 rates, which ranged from 0.79% to 2.65%. The higher 2021 discount rates in the U.S. are reflective of increased market interest rates over this period. A 25 basis point decrease in the discount rates used for these plans would have increased the post-retirement benefit obligations by approximately \$30.0 million from the amount recorded in the consolidated financial statements at December 31, 2021. Our pension expense is also sensitive to changes in the expected long-term rate of return on plan assets. A decrease of 25 basis points in the expected long-term rate of return on plan assets.

Income Taxes - We have significant amounts of deferred tax assets that are evaluated for recoverability and valued accordingly. These assets are evaluated using estimates of future taxable income streams and the impact of tax planning strategies. Unrecognized tax benefits are also estimated, using more likely than not criteria, for federal, state and non-U.S. tax matters. We routinely monitor the potential impact of these matters and believe that the proper reserves have been established. Reserves related to unrecognized tax benefits and valuations related to deferred tax assets can be impacted by changes in tax laws, changes in statutory tax rates and future taxable income. The provision for unrecognized tax benefits provides a recognition threshold and measurement attribute for determining the financial statement tax benefits taken or expected to be taken in a tax return and disclosure requirements regarding uncertainties in income tax positions. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. We record interest and penalties related to unrecognized tax benefits as a component of our provision for income taxes.

Risk, Retention, Insurance - We have significant accruals and reserves related to the self-retained portion of our risk management program. These accruals require the use of estimates and judgment with regard to risk exposure and ultimate liability. We estimate losses under these programs using actuarial assumptions, our experience and relevant industry data. We review these factors quarterly and consider the current level of accruals and reserves adequate relative to current market conditions and experience.

Contingencies - We have established liabilities for environmental and legal contingencies at both the business and corporate levels. A significant amount of judgment and the use of estimates are required to quantify our ultimate exposure in these matters. The valuation of liabilities for these contingencies is reviewed on a quarterly basis to ensure that we have accrued the proper level of expense. The liability balances are adjusted to account for changes in circumstances for ongoing issues and the establishment of additional liabilities for emerging issues. While we believe that the amount accrued to-date is adequate, future changes in circumstances could impact these determinations.

Restructuring - We establish liabilities for restructuring activities at an operation when management has committed to an exit or reorganization plan and when termination benefits are probable and can be reasonably estimated based on circumstances at the time the restructuring plan is approved by management or when termination benefits are communicated. Exit costs may include contractual terminations and asset impairments as a result of an approved restructuring plan. The accrual of both severance and exit costs requires the use of estimates. Though we believe that these estimates accurately reflect the anticipated costs, actual results may be different than the estimated amounts.

Dispositions - From time to time we sell or dispose of certain operations for various reasons. Estimates are used to adjust, if necessary, the assets and liabilities of such operations to their estimated fair value. These estimates include assumptions relating to the proceeds anticipated as a result of the sale. Fair value is established using internal valuation calculations along with market analysis of similar-type entities. The adjustments to fair value of these operations provide the basis for the gain or loss when sold. Changes in business conditions or the inability to sell an operation could potentially require future adjustments to these estimates. As noted previously, in 2019, we recorded an impairment on assets held for sale due to the sale of Finder. In 2021 and 2020, no impairment charges were recorded due to disposed operations. See Note 4 — Dispositions to the Consolidated Financial Statements in Item 8 of this Form 10-K.

Stock-Based Compensation - We are required to recognize in our Consolidated Statements of Earnings the expense associated with all share-based payment awards made to employees and directors, including stock appreciation rights ("SARs"), restricted stock units and performance share awards. We use the Black-Scholes valuation model to estimate the fair value of SARs granted to employees. The performance share awards granted in 2021 and 2020 are market condition awards and we determined the fair value using the Monte Carlo simulation model (a binomial lattice-based valuation model). For information related to the assumptions used, see Note 15 — Equity and Cash Incentive Program to the Consolidated Financial Statements in Item 8 of this Form 10-K.

Recent Accounting Standards

See Note 1 — Description of Business and Summary of Significant Accounting Policies to the Consolidated Financial Statements in Item 8 of this Form 10-K for a discussion of recent accounting pronouncements and recently adopted accounting standards.

In November 2020, the SEC issued Final Rule Release No. 33-10890, Management's Discussion and Analysis, Selected Financial Data, and Supplementary Financial Information. This rule, which became effective on February 10, 2021, amended certain SEC disclosure requirements in order to modernize, simplify and enhance certain financial disclosure requirements in Regulation S-K. Specifically, the amendments eliminate the requirement for Selected Financial Data, streamline the requirement to disclose Supplementary Financial Information, and amend Management's Discussion and Analysis. The final rule is applicable for fiscal years ending on or after August 9, 2021.

Non-GAAP Disclosures

In an effort to provide investors with additional information regarding our results as determined by GAAP, we also disclose non-GAAP information which we believe provides useful information to investors. Segment EBITDA, segment EBITDA margin, free cash flow, free cash flow as a percentage of revenue, free cash flow as a percentage of net earnings, net debt, net capitalization, net debt to net capitalization ratio, adjusted working capital, organic revenue growth and rightsizing and other costs are not financial measures under GAAP and should not be considered as a substitute for earnings, cash flows from operating activities, debt or equity, working capital, revenue or restructuring costs as determined in accordance with GAAP, and they may not be comparable to similarly titled measures reported by other companies.

We believe that segment EBITDA and segment EBITDA margin are useful to investors and other users of our financial information in evaluating ongoing operating profitability as they exclude the depreciation and amortization expense related primarily to capital expenditures and acquisitions that occurred in prior years, as well as in evaluating operating performance in relation to our competitors. Segment EBITDA is calculated by adding back depreciation and amortization expense to segment earnings, which is the most directly comparable GAAP measure. We do not present segment net income because corporate expenses are not allocated at a segment level. Segment EBITDA margin is calculated as segment EBITDA divided by segment revenue.

We believe the net debt to net capitalization ratio, free cash flow and free cash flow ratios are important measures of liquidity. Net debt to net capitalization ratio is helpful in evaluating our capital structure and the amount of leverage we employ. Free cash flow and free cash flow ratios provide both management and investors a measurement of cash generated from operations that is available to fund acquisitions, pay dividends, repay debt and repurchase our common stock. Free cash flow as a percentage of revenue equals free cash flow divided by revenue. Free cash flow as a percentage of net earnings equals free cash flow divided by net earnings. We believe that reporting adjusted working capital, which is calculated as accounts receivable, plus inventory, less accounts payable, provides a meaningful measure of our operational results by showing the changes caused solely by revenue. We believe that reporting organic revenue growth, which exclude the impact of foreign currency exchange rates and the impact of acquisitions and divestitures, provides a useful comparison of our revenue performance and trends between periods. We believe that reporting rightsizing and other costs, which include restructuring and other charges, is important as it enables management and investors to better understand the financial impact of our broad-based cost reduction, footprint consolidation, IT centralization and operational improvement initiatives.

Reconciliations and comparisons of GAAP to non-GAAP measures can be found above in this Item 7, MD&A.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information required by this section is incorporated by reference to the section, "Financial Instruments and Risk Management", included within the MD&A in Item 7.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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(All other schedules are not required and have been omitted)

Financial Statement Schedule - Schedule II, Valuation and Qualifying Accounts for the Years Ended December 31, 2021, 2020, and 2019

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f).

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2021. In making this assessment, the Company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control — Integrated Framework* (2013).

Based on its assessment under the criteria set forth in *Internal Control* — *Integrated Framework* (2013), management concluded that, as of December 31, 2021, the Company's internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2021 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Dover Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Dover Corporation and its subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of earnings, of comprehensive earnings, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2021, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

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

Goodwill Impairment Test

As described in Notes 1 and 9 to the consolidated financial statements, the Company's consolidated goodwill balance was \$4.559 billion as of December 31, 2021. Management performs its goodwill impairment test annually in the fourth quarter, or more frequently if events or circumstances indicate that the carrying value of goodwill may be impaired, when some portion but not all of a reporting unit is disposed of or classified as held for sale, or when a change in the composition of reporting units occurs for other reasons. When performing the impairment test, management estimates fair value of each reporting unit using the income-based valuation method, which involves significant judgment. Under the income-based valuation method, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk-adjusted rate. Management uses internal forecasts to estimate future cash flows, which are based on historical performance and future estimated results.

The principal considerations for our determination that performing procedures relating to the goodwill impairment test is a critical audit matter are there was significant judgment by management when developing the fair value measurement of each reporting unit, which in turn led to a high degree of auditor judgment and subjectivity in performing procedures and in evaluating management's estimate of fair value of the reporting units, specifically related to revenue growth in the estimated future cash flows. In addition, the nature and extent of audit effort required to address the matter was a consideration.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment test, including controls over the determination of revenue growth in the estimated future cash flows. These procedures also included, among others, testing the appropriateness of the discounted cash flow model, assessing results of sensitivities over the assumptions in the discounted cash flow model, and testing the reasonableness of significant assumptions used by management, specifically revenue growth. When testing revenue growth, we evaluated whether the assumptions were reasonable by (i) understanding management's process to develop the estimated future cash flows, (ii) comparing management's forecasted revenue growth to current and prior period performance and (iii) comparing management's forecasted revenue growth to external market and/or industry data.

/s/ PricewaterhouseCoopers LLP
Chicago, Illinois
February 11, 2022

We have served as the Company's auditor since 1995.

DOVER CORPORATION CONSOLIDATED STATEMENTS OF EARNINGS

(In thousands, except per share amounts)

	Years Ended December 31,					
	2021 2020				2019	
Revenue	\$ 7,907,081	\$	6,683,760	\$	7,136,397	
Cost of goods and services	4,937,295		4,209,741		4,515,459	
Gross profit	2,969,786		2,474,019		2,620,938	
Selling, general and administrative expenses	1,688,278		1,541,032		1,599,098	
Loss on assets held for sale	_		_		46,946	
Operating earnings	1,281,508		932,987		974,894	
Interest expense	106,319		111,937		125,818	
Interest income	(4,441)		(3,571)		(4,526)	
Loss on extinguishment of debt	_		_		23,543	
Gain on dispositions	(206,338)		(5,213)		_	
Other income, net	(14,858)		(11,900)		(12,950)	
Earnings before provision for income taxes	1,400,826		841,734		843,009	
Provision for income taxes	277,008		158,283		165,091	
Net earnings	\$ 1,123,818	\$	683,451	\$	677,918	
Net earnings per share:						
Basic	\$ 7.81	\$	4.74	\$	4.67	
Diluted	\$ 7.74	\$	4.70	\$	4.61	
Weighted average shares outstanding:						
Basic	143,923		144,050		145,198	
Diluted	145,273		145,393		146,992	

DOVER CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS (In thousands)

	Years Ended December 31,						
	2021			2020		2019	
Net earnings	\$	1,123,818	\$	683,451	\$	677,918	
Other comprehensive earnings (loss), net of tax							
Foreign currency translation adjustments:							
Foreign currency translation (losses) gains		(39,819)		55,450		(5,025)	
Reclassification of foreign currency translation losses to earnings		_		_		25,339	
Total foreign currency translation adjustments (net of \$(20,976), \$26,957 and \$(4,714) tax (provision) benefit, respectively)		(39,819)		55,450		20,314	
Pension and other postretirement benefit plans:							
Actuarial gains		26,960		705		47	
Prior service (cost) credit		(1,433)		828		1,818	
Amortization of actuarial losses included in net periodic pension cost		9,451		6,695		596	
Amortization of prior service costs included in net periodic pension cost		1,023		1,153		2,141	
Settlement and curtailment impact		1,167		18		806	
Total pension and other postretirement benefit plans (net of \$(9,868), \$(3,197) and \$(1,184) tax (provision) benefit, respectively)		37,168		9,399		5,408	
Changes in fair value of cash flow hedges:							
Unrealized net gains (losses)		6,724		(1,445)		1,495	
Net gains reclassified into earnings		(4,871)		(632)		(147)	
Total cash flow hedges (net of \$(532), \$607 and \$(359) tax (provision) benefit, respectively)		1,853		(2,077)		1,348	
Other comprehensive (loss) earnings, net of tax		(798)		62,772		27,070	
Comprehensive earnings	\$	1,123,020	\$	746,223	\$	704,988	

DOVER CORPORATION CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2021	December 31, 2020		
Assets				
Current assets:				
Cash and cash equivalents	\$ 385,504	\$ 513,075		
Receivables, net	1,347,514	1,137,223		
Inventories, net	1,191,095	835,804		
Prepaid and other current assets	137,596	133,085		
Total current assets	3,061,709	2,619,187		
Property, plant and equipment, net	957,310	897,326		
Goodwill	4,558,822	4,072,542		
Intangible assets, net	1,359,522	1,083,772		
Other assets and deferred charges	466,264	479,247		
Total assets	\$ 10,403,627	\$ 9,152,074		
Liabilities and Stockholders' Equity				
Current liabilities:				
Notes payable	\$ 105,702	\$		
Accounts payable	1,073,568	853,942		
Accrued compensation and employee benefits	302,978	239,750		
Deferred revenue	227,549	184,845		
Accrued insurance	101,448	98,954		
Other accrued expenses	347,097	343,637		
Federal and other income taxes	91,999	17,670		
Total current liabilities	2,250,341	1,738,798		
Long-term debt	 3,018,714	3,108,829		
Deferred income taxes	364,117	298,423		
Noncurrent income tax payable	48,385	49,937		
Other liabilities	532,542	570,314		
Stockholders' equity:				
Preferred stock - \$100 par value; 100,000 shares authorized; none issued	_	_		
Common stock - \$1 par value; 500,000,000 shares authorized; 259,457,233 and 258,981,638 shares issued at December 31, 2021 and 2020	259,457	258,982		
Additional paid-in capital	857,636	868,882		
Retained earnings	9,445,245	8,608,284		
Accumulated other comprehensive loss	(154,052)	(153,254)		
Treasury stock, at cost: 115,411,548 and 115,228,597 shares at December 31, 2021 and 2020	(6,218,758)	(6,197,121)		
Total stockholders' equity	4,189,528	3,385,773		
Total liabilities and stockholders' equity	\$ 10,403,627	\$ 9,152,074		

DOVER CORPORATION CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (In thousands, except per share amounts)

	Common Stock \$1 Par Value	Additional Paid- In Capital	Retained Earnings	Accumulated Other Comprehensive Earnings (Loss)	Treasury Stock	Total Stockholders' Equity
Balance at December 31, 2018	\$ 257,822	\$ 886,016	\$ 7,815,486	\$ (243,096)	\$ (5,947,562)	\$ 2,768,666
Net earnings	_	_	677,918	_	_	677,918
Dividends paid (\$1.94 per share)	_	_	(282,197)	_	_	(282,197)
Common stock issued for the exercise of share-based awards	730	(38,100)	_	_	_	(37,370)
Stock-based compensation expense	_	29,702	_	_	_	29,702
Common stock acquired	_		_	_	(143,280)	(143,280)
Other comprehensive earnings, net of tax	_	_	_	27,070	_	27,070
Other		(7,899)	50			(7,849)
Balance at December 31, 2019	258,552	869,719	8,211,257	(216,026)	(6,090,842)	3,032,660
Adoption of ASU 2016-13- CECL	_	_	(2,112)			(2,112)
Net earnings	_	<u> </u>	683,451	_	_	683,451
Dividends paid (\$1.97 per share)	_		(284,312)	_	_	(284,312)
Common stock issued for the exercise of share-based awards	430	(28,906)	_	_	_	(28,476)
Stock-based compensation expense	_	25,026	_	_	_	25,026
Common stock acquired	_	_	_	_	(106,279)	(106,279)
Other comprehensive earnings, net of tax	_		_	62,772	_	62,772
Other		3,043				3,043
Balance at December 31, 2020	258,982	868,882	8,608,284	(153,254)	(6,197,121)	3,385,773
Net earnings	_	_	1,123,818	_	_	1,123,818
Dividends paid (\$1.99 per share)	_		(286,896)	_	_	(286,896)
Common stock issued for the exercise of share-based awards	475	(42,399)	_	_	_	(41,924)
Stock-based compensation expense	_	31,111	_	_	_	31,111
Common stock acquired	_		_	_	(21,637)	(21,637)
Other comprehensive loss, net of tax	_	_	_	(798)	_	(798)
Other	_	42	39	_	_	81
Balance at December 31, 2021	\$ 259,457	\$ 857,636	\$ 9,445,245	\$ (154,052)	\$ (6,218,758)	\$ 4,189,528

DOVER CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS (In thousands)

Years Ended December 31, 2021 2020 2019 **Operating Activities:** \$ \$ Net earnings 1,123,818 683,451 677,918 Adjustments to reconcile net earnings to cash from operating activities: Depreciation and amortization 290,123 279,051 272,287 Stock-based compensation 31,111 25,026 29,702 Gain on dispositions (206,338)(5,213)Provision for losses on accounts receivable (net of recoveries) 5,933 5,053 11,171 Deferred income taxes (48,322)(25,643)(11,966)Employee benefit plan expense 11,897 7,205 5,844 Loss on assets held for sale 46,946 Loss on extinguishment of debt 23,543 Other, net (7,368)(6,593)(3,652)Cash effect of changes in assets and liabilities (excluding effects of acquisitions, dispositions and foreign exchange): (201,540)122,407 (7,903)Accounts receivable Inventories (297,623)10,519 (56,870)Prepaid expenses and other assets (14,303)(17,915)(25,797)Accounts payable 229,334 (95,636)12,670 Accrued compensation and employee benefits 15,580 65,482 12,277 129,916 Accrued expenses and other liabilities 60,734 (7,056)Accrued taxes 88,190 (5,412)(10,437)Contributions to employee benefit plans (14,383)(19,801)(21,436)Net cash provided by operating activities 1,115,865 1,104,810 945,306 **Investing Activities:** Additions to property, plant and equipment (171,465)(165,692)(186,804)Acquisitions (net of cash and cash equivalents acquired) (215,687)(1,112,075)(335,786)7,070 Proceeds from sale of property, plant and equipment 7,207 4,168 Proceeds from dispositions 274,982 15,400 24,218 Other (2,508)(10,150)8,735 Net cash used in investing activities (992,753)(481,379)(384,255)**Financing Activities:** 105,000 (84,700)(135,650)Change in commercial paper and notes payable, net Proceeds from long-term debt 847,469 Repayment of long-term debt (805,112)Dividends to stockholders (286,896)(284,312)(282,197)Purchase of common stock (21,637)(106, 279)(143,280)Payments for employee tax obligations upon exercise of share-based awards (41,924)(28,476)(37,370)Other (4,423)(2,523)(1,902)(506,290) Net cash used in financing activities (249,880)(558,042)Effect of exchange rate changes on cash and cash equivalents (803)(1,319)(1,977)Net (decrease) increase in cash and cash equivalents (127,571)115,822 1,032 Cash and cash equivalents at beginning of year 513,075 397,253 396,221 Cash and cash equivalents at end of year 385,504 513,075 397,253 Supplemental information - cash paid during the year for: Income taxes \$ 233,631 199,657 \$ 191,084 Interest 102,139 108,119 126,753

(Amounts in thousands except share data and where otherwise indicated)

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Dover Corporation ("Dover" or "Company") is a diversified global manufacturer and solutions provider delivering innovative equipment and components, consumable supplies, aftermarket parts, software and digital solutions and support services. The Company's businesses are based primarily in the United States and Europe with manufacturing and other operations throughout the world. In view of recent changes to the Company's business portfolio and to better reflect the markets and customers served, the name of the Fueling Solutions segment was changed to Clean Energy & Fueling and the name of the Refrigeration & Food Equipment segment was changed to Climate & Sustainability Technologies. The Company operates through five business segments that are structured around similar business models, go-to market strategies and manufacturing practices: Engineered Products, Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions and Climate & Sustainability Technologies. For additional information on the Company's segments, see Note 19 — Segment Information.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation. The results of operations of acquired businesses are included from the dates of acquisitions.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying disclosures. These estimates may be adjusted due to changes in future economic, industry, or customer financial conditions, as well as changes in technology or demand. Estimates are used for, but not limited to, allowances for doubtful accounts receivable, net realizable value of inventories, restructuring reserves, warranty reserves, pension and post-retirement plans, stock-based compensation, useful lives for depreciation and amortization of long-lived assets, future cash flows associated with impairment testing for goodwill, indefinite-lived intangible assets and other long-lived assets, deferred tax assets, unrecognized tax benefits and contingencies. Actual results may ultimately differ from estimates, although management does not believe such differences would materially affect the consolidated financial statements in any individual year. Estimates and assumptions are periodically reviewed and the effects of revisions are reflected in the Consolidated Financial Statements in the period that they are determined.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, demand deposits and short-term investments, which are highly liquid in nature and have original maturities at the time of purchase of three months or less. The carrying value of cash and cash equivalents approximate fair value.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded at face amounts less an allowance for doubtful accounts. Effective January 1, 2020, the Company adopted Accounting Standards Update ("ASU") 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments prospectively. This ASU replaces the incurred loss impairment model with an expected credit loss impairment model for financial instruments, including trade receivables

The allowance is an estimate based on historical collection experience, current and future economic and market conditions and a review of the current status of each customer's trade accounts receivable. Management evaluates the aging of the accounts receivable balances and the financial condition of its customers and all other forward-looking information that is reasonably available to estimate the amount of accounts receivable that may not be collected in the future and records the appropriate provision. See Note 8 — Credit Losses for additional information.

(Amounts in thousands except share data and where otherwise indicated)

Inventories

Inventories are stated at the lower of cost, determined on the first-in, first-out (FIFO) basis, or net realizable value. An immaterial portion of domestic inventories are stated at cost, determined on the last-in, first-out (LIFO) basis, which is less than market value.

Property, Plant and Equipment

Property, plant and equipment includes the historical cost of land, buildings, machinery and equipment, purchased software, finance lease assets and significant improvements to existing plant and equipment or, in the case of acquisitions, the fair value of acquired assets. Expenditures for maintenance, repairs and minor renewals are expensed as incurred. When property or equipment is sold or otherwise disposed of, the related cost and accumulated depreciation are removed from the respective accounts and the gain or loss realized on disposition is reflected in earnings. The Company depreciates its assets on a straight-line basis over their estimated useful lives as follows: buildings and improvements 5 to 31.5 years; machinery and equipment 3 to 15 years; furniture and fixtures 3 to 7 years; vehicles 3 to 7 years; and software 3 to 10 years.

Derivative Financial Instruments

The Company uses derivative financial instruments to hedge its exposures to various risks, including foreign currency exchange rate risk. The Company does not enter into derivative financial instruments for speculative purposes and does not have a material portfolio of derivative financial instruments. Derivative financial instruments used for hedging purposes must be designated and effective as a hedge of the identified risk exposure at inception of the contract. The Company recognizes all derivatives as either assets or liabilities on the consolidated balance sheet and measures those instruments at fair value. For derivatives designated as hedges of the fair value of assets or liabilities, the changes in fair value of both the derivatives and of the hedged items are recorded in current earnings. For derivatives designated as cash flow hedges, the change in the fair value of the derivatives is recorded as a component of other comprehensive earnings and subsequently recognized in net earnings when the hedged items impact earnings.

Goodwill and Other Intangible Assets

Goodwill represents the excess of purchase price over the fair value of net assets acquired. Goodwill and certain other intangible assets deemed to have indefinite lives (primarily trademarks) are not amortized. For goodwill, impairment tests are required at least annually, or more frequently if events or circumstances indicate that it may be impaired, when some portion but not all of a reporting unit is disposed of or classified as assets held for sale, or when a change in the composition of reporting units occurs for other reasons, such as a change in segments. Based on its current organizational structure, the Company identified reporting units for which cash flows are determinable and to which goodwill was allocated.

The Company performs its goodwill impairment test annually in the fourth quarter at the reporting unit level. A quantitative test is used to determine existence of goodwill impairment and the amount of the impairment loss at the reporting unit level. The quantitative test compares the fair value of a reporting unit with its carrying amount, including goodwill. The Company uses an income-based valuation method, determining the present value of estimated future cash flows, to estimate the fair value of a reporting unit. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit. Factors used in the impairment analysis require significant judgment, and actual results may differ from assumed and estimated amounts. The Company uses its own market assumptions including internal projections of future cash flows, discount rates and other assumptions considered reasonable in the analysis and reflective of market participant assumptions. These forecasts are based on historical performance and future estimated results. The discount rates used in these analyses vary by reporting unit and are based on a capital asset pricing model and published relevant industry rates. The Company uses discount rates commensurate with the risks and uncertainties inherent to each reporting unit and in the internally developed forecasts. See Note 9 — Goodwill and Other Intangible Assets for further discussion of the Company's annual goodwill impairment test and results. No impairment of goodwill was required for the years ended December 31, 2021, 2020, or 2019.

The Company uses an income-based valuation method to annually test its indefinite-lived intangible assets for impairment. The fair value of the intangible asset is compared to its carrying value. This method uses the Company's own market assumptions, which are considered reasonable. Any excess of carrying value over the estimated fair value is recognized as an

(Amounts in thousands except share data and where otherwise indicated)

impairment loss. No impairment of indefinite-lived intangible assets was required for the years ended December 31, 2021, 2020, or 2019.

Other intangible assets with determinable lives primarily consist of customer intangibles, unpatented technologies, patents and trademarks. The other intangible assets are amortized over their estimated useful lives, ranging from 5 to 20 years.

Long-lived assets (including definite-lived intangible assets) are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, such as a significant sustained change in the business climate. If an indicator of impairment exists for any grouping of assets, an estimate of undiscounted future cash flows is produced and compared to its carrying value. If an asset group is determined to be impaired, the loss is measured by the excess of the carrying amount of the asset group over its fair value, as determined by an estimate of discounted future cash flows.

Leases

Effective January 1, 2019, the Company adopted Accounting Standard Codification ("ASC") Topic 842, Leases, which requires the recording of operating lease right-of-use assets ("ROU") and operating lease liabilities. Finance leases were not impacted by the adoption of ASC Topic 842, as finance lease liabilities and the corresponding ROU assets were already recorded in the balance sheet under the previous guidance, ASC Topic 840.

The Company has operating and finance leases for corporate offices, manufacturing plants, research and development facilities, shared services facilities, vehicle fleets and certain office and manufacturing equipment. Leases with an initial term of 12 months or less are not recorded in the balance sheet. The Company elected practical expedients under the standard which allow the Company to carry forward historical lease classifications and also account for each separate lease component of a contract and its associated non-lease components as a single lease component, thus causing all fixed payments to be capitalized. Variable lease payment amounts that cannot be determined at the commencement of the lease, such as increases in lease payments based on changes in index rates or usage, are not included in the ROU assets or liabilities. These are expensed as incurred and recorded as variable lease expense.

The Company determines if an arrangement is a lease at inception of a contract. Operating lease ROU assets are included in other assets and deferred charges and operating lease liabilities are included in other accrued expenses and other liabilities in the Consolidated Balance Sheet. Finance lease ROU assets are included in property, plant and equipment, and the related lease liabilities are included in other accrued expenses and other liabilities in the Consolidated Balance Sheet.

ROU assets represent the Company's right to use an underlying asset during the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the commencement date based on the net present value of fixed lease payments over the lease term. The lease term includes options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. ROU assets also include any advance lease payments made and exclude lease incentives. As most of the Company's operating leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. Finance lease agreements include an interest rate that is used to determine the present value of future lease payments. Fixed operating lease expense and finance lease depreciation expense are recognized on a straight-line basis over the lease term.

Restructuring Accruals

The Company takes actions to reduce headcount, close facilities, or otherwise exit operations. Such restructuring activities at an operation are recorded when management has committed to an exit or reorganization plan and when termination benefits are probable and can be reasonably estimated based on circumstances at the time the restructuring plan is approved by management or when termination benefits are communicated. Exit costs may include contractual terminations and asset impairments as a result of an approved restructuring plan. The accrual of both severance and exit costs requires the use of estimates. Though the Company believes that its estimates accurately reflect the anticipated costs; actual results may be different from the original estimated amounts.

(Amounts in thousands except share data and where otherwise indicated)

Foreign Currency

Assets and liabilities of non-U.S. subsidiaries, where the functional currency is not the U.S. dollar, have been translated at year-end exchange rates and profit and loss accounts have been translated using weighted-average monthly exchange rates. Foreign currency translation gains and losses are included in the Consolidated Statements of Comprehensive Earnings as a component of other comprehensive earnings (loss). Assets and liabilities of an entity that are denominated in currencies other than an entity's functional currency are re-measured into the functional currency using end of period exchange rates, where applicable to certain balances. Gains and losses related to these re-measurements are recorded within the Consolidated Statements of Earnings as a component of other income, net. Gains and losses arising from intercompany foreign currency transactions that are of a long-term investment in nature are reported in the same manner as translation adjustments.

Revenue Recognition

The majority of the Company's revenue is generated through the manufacture and sale of a broad range of specialized products and components, with revenue recognized upon transfer of control, title and risk of loss, which is generally upon shipment. Service revenue represents less than 5% of total revenue and is recognized as the services are performed. In limited cases, revenue arrangements with customers require delivery, installation, testing, certification, or other acceptance provisions to be satisfied before revenue is recognized. The Company includes shipping costs billed to customers in revenue and the related shipping costs in cost of goods and services.

Stock-Based Compensation

The principal awards issued under the Company's stock-based compensation plans include non-qualified stock appreciation rights ("SARs"), restricted stock units and performance share awards. The cost for such awards is measured at the grant date based on the fair value of the award. At the time of grant, the Company estimates forfeitures, based on historical experience, in order to estimate the portion of the award that will ultimately vest. The value of the portion of the award that is expected to ultimately vest is recognized as expense on a straight-line basis, generally over the explicit service period of three years (except for retirement-eligible employees) and is included in selling, general and administrative expenses in the Consolidated Statements of Earnings. Expense for awards granted to retirement-eligible employees is recorded over the period from the date of grant through the date the employee first becomes eligible to retire and is no longer required to provide service. See Note 15 — Equity and Cash Incentive Program for additional information related to the Company's stock-based compensation.

Income Taxes

The provision for income taxes includes federal, state, local and non-U.S. taxes. Tax credits, primarily for research and experimentation, are recognized as a reduction of the provision for income taxes in the year in which they are available for tax purposes. Deferred taxes are provided using enacted rates on the future tax consequences of temporary differences. Temporary differences include the differences between the financial statement carrying amounts of assets and liabilities and their respective tax basis and the tax benefit of carryforwards. A valuation allowance is established for deferred tax assets for which it is more likely than not that some portion or all of the deferred tax benefit will not be realized. In assessing the need for a valuation allowance, management considers all available evidence, including the future reversal of existing taxable temporary differences, taxable income in carryback periods, prudent and feasible tax planning strategies and estimated future taxable income. The valuation allowance can be affected by changes to tax regulations, interpretations and rulings, changes to enacted statutory tax rates and changes to future taxable income estimates.

Tax benefits are recognized from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position in consideration of applicable tax statutes and related interpretations and precedents. Tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized on ultimate settlement.

(Amounts in thousands except share data and where otherwise indicated)

Research and Development Costs

Research and development costs, including qualifying engineering costs, are expensed when incurred and amounted to \$157,826 in 2021, \$142,101 in 2020 and \$140,957 in 2019. These costs as a percent of revenue were 2.0% in 2021, 2.1% in 2020 and 2.0% in 2019. Research and development costs are reported within selling, general and administrative expenses in the Consolidated Statements of Earnings.

Advertising Costs

Advertising costs are expensed when incurred and amounted to \$23,685 in 2021, \$21,375 in 2020 and \$24,609 in 2019. Advertising costs are reported within selling, general and administrative expenses in the Consolidated Statements of Earnings.

Risk, Retention, Insurance

The Company has deductibles for its product and commercial general liability claims up to \$5.0 million per occurrence, its workers' compensation claims up to \$0.8 million per occurrence and its automobile liability claims up to \$1.0 million per occurrence. Third-party insurance provides primary-level coverage in excess of these amounts up to certain specified limits. In addition, the Company has excess liability insurance from third-party insurers on both an individual occurrence and an aggregate basis well in excess of the limits of the primary coverage. A worldwide program of property insurance covers the Company's owned and leased property for claims, including business interruption that may occur due to an insured hazard affecting those properties, subject to reasonable deductibles and aggregate limits. The Company's property and casualty insurance programs contain various deductibles that, based on the Company's experience, are typical and customary for a company of its size and risk profile. The Company does not consider any of the deductibles to represent a material risk to the Company. The Company generally maintains deductibles for claims and liabilities related primarily to workers' compensation, health and welfare claims, general commercial, product and automobile liability, cybersecurity risks, property damage and business interruption resulting from certain events. The Company accrues for claim exposures that are probable of occurrence and can be reasonably estimated. As part of the Company's risk management program, insurance is maintained to transfer risk beyond the level of self-retention and provide protection on both an individual claim and annual aggregate basis.

Recent Accounting Pronouncements

Recently Issued Accounting Standards

The following standards, issued by the Financial Accounting Standards Board ("FASB"), will, or are expected to, result in a change in practice and/or have a financial impact to the Company's Consolidated Financial Statements:

In October 2021, the FASB issued ASU 2021-08 Business Combinations (Topic 805)-Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. The amendments in this update require that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, Revenue from Contracts with Customers, as if the acquirer had originated the contracts. Under current guidance, the acquirer generally recognizes such contract assets and contract liabilities at fair value on the acquisition date. The amendments in this update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. The amendments in this update should be applied prospectively to business combinations occurring on or after the effective date of the amendments. Early adoption of the amendments is permitted, including adoption in an interim period. The Company is in the process of assessing the impact of this ASU on its Consolidated Financial Statements, but does not expect this update to have a material impact.

(Amounts in thousands except share data and where otherwise indicated)

Recently Adopted Accounting Standards

In March 2020 and January 2021, the FASB issued ASU No. 2020-04, Reference Rate Reform (Topic 848) Facilitation of the Effects of Reference Rate Reform on Financial Reporting and ASU 2021-01, Reference Rate Reform, Scope, respectively. These updates provide optional guidance for a limited time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform, including expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments in these updates are elective and are effective upon issuance for all entities. The Company adopted the guidance during the third quarter of 2021. The adoption did not have a material impact the Company's Consolidated Financial Statements.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses rather than incurred losses to estimate credit losses on certain types of financial instruments, including trade receivables. This may result in the earlier recognition of allowances for losses. In addition, the FASB issued ASU 2019-04, Codification Improvements to Topic 326 which provides clarity on certain aspects of the amendments in ASU 2016-13. The Company adopted this guidance on January 1, 2020 prospectively. Upon adoption, the Company recorded a noncash cumulative effect adjustment to retained earnings of \$2.1 million, net of \$0.6 million of income taxes, on the opening consolidated balance sheet as of January 1, 2020. See Note 8 — Credit Losses for further details.

2. Revenue

Revenue from contracts with customers

A majority of the Company's revenue is short cycle in nature with shipments within one year from order. A small portion of the Company's revenue derives from contracts extending over one year. The Company's payment terms generally range between 30 to 90 days and vary by the location of businesses, the type of products manufactured to be sold and the volume of products sold, among other factors.

Disaggregation of Revenue

Revenue from contracts with customers is disaggregated by segment and geographic location, as they best depict the nature and amount of the Company's revenue.

See Note 19 — Segment Information for revenue by segment and geographic location.

Performance Obligations

A majority of the Company's contracts have a single performance obligation which represents, in most cases, the equipment or product being sold to the customer. Some contracts include multiple performance obligations such as a product and the related installation, extended warranty, software and digital solutions, and/or maintenance services. These contracts require judgment in determining the number of performance obligations.

The Company has elected to use the practical expedient to not adjust the promised amount of consideration for the effects of a significant financing component if it is expected, at contract inception, that the period between when the Company transfers a promised good or service to a customer, and when the customer pays for that good or service, will be one year or less. Thus, the Company may not consider an advance payment to be a significant financing component, if it is received less than one year before product completion.

The majority of the Company's contracts offer assurance-type warranties in connection with the sale of a product to a customer. Assurance-type warranties provide a customer with assurance that the related product will function as the parties intended because it complies with agreed-upon specifications. Such warranties do not represent a separate performance obligation.

The Company may also offer service-type warranties that provide services to the customer, in addition to the assurance that the product complies with agreed-upon specifications. If a warranty is determined to be a service-type warranty, it represents a distinct service and is treated as a separate performance obligation.

(Amounts in thousands except share data and where otherwise indicated)

For contracts with multiple performance obligations, the Company allocates the total transaction price to each performance obligation in an amount based on the estimated relative standalone selling prices of the promised goods or services underlying each performance obligation. The Company uses an observable price to determine the standalone selling price for separate performance obligations or a cost plus margin approach when one is not available.

Over 95% of the Company's performance obligations are recognized at a point in time that relate to the manufacture and sale of a broad range of products and components. Revenue is recognized when control transfers to the customer upon shipment or completion of installation, testing, certification, or other substantive acceptance provisions required under the contract. Less than 5% of the Company's revenue is recognized over time and relates to the sale of equipment or services in which the Company transfers control of a good or service over time and the customer simultaneously receives and consumes the benefits as the Company performs, or the Company's performance creates or enhances an asset the customer controls as the asset is created or enhanced, or the Company's performance does not create an asset with an alternative use to the Company and the Company has an enforceable right to payment for its performance to date plus a reasonable margin.

For revenue recognized over time, there are two types of methods for measuring progress and both are relevant to the Company: (1) input methods and (2) output methods. Although this may vary by business, input methods generally are based on costs incurred relative to estimated total costs. Output methods generally are based on a measurement of progress, such as milestone achievement. The businesses use the method and measure of progress that best depicts the transfer of control to the customer of the goods or services to date relative to the remaining goods or services promised under the contract.

Transaction Price Allocated to the Remaining Performance Obligations

At December 31, 2021, we estimated that \$263,085 in revenue is expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period. We expect to recognize approximately 43% of our unsatisfied (or partially unsatisfied) performance obligations as revenue in 2022, with the remaining balance to be recognized in 2023 and thereafter.

Remaining consideration, including variable consideration, from contracts with customers is included in the amounts presented in the preceding paragraph and pertains to contracts with multiple performance obligations, extended warranties on products and multi-year maintenance agreements, which are typically recognized as the performance obligation is satisfied.

The Company applied the standard's practical expedient that permits the omission of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which the Company recognizes revenue at the amount to which the Company has the right to invoice for services performed.

Contract Balances

The following table provides information about contract assets and contract liabilities from contracts with customers:

	12/31/2021	12/31/2020	12/31/2019
Contract assets	\$ 11,440	\$ 15,020	\$ 14,894
Contract liabilities - current	227,549	184,845	104,901
Contract liabilities - non-current	21,513	13,921	10,921

Contract assets primarily relate to the Company's right to consideration for work completed but not billed at the reporting date and are recorded in prepaid and other current assets in the Consolidated Balance Sheet. Contract assets are transferred to receivables when the right to consideration becomes unconditional. Contract liabilities relate to advance consideration received from customers or advance billings for which revenue has not been recognized. Current contract liabilities are recorded in deferred revenue and non-current contract liabilities are recorded in other liabilities in the Consolidated Balance Sheet. Contract liabilities are reduced when the associated revenue from the contract is recognized. The increase in current contract liabilities balance as of December 31, 2021 primarily relates to advance payments received from customers.

(Amounts in thousands except share data and where otherwise indicated)

The revenue recognized during 2021 and 2020 that was included in the contract liabilities at the beginning of the respective periods amounted to \$163.5 million and \$99.6 million.

Contract Costs

Costs incurred to obtain a customer contract are not material to the Company. The Company elected to apply the practical expedient to not capitalize contract costs to obtain contracts with a duration of one year or less, which are expensed and included within cost of goods and services in the Consolidated Statements of Earnings.

Critical Accounting Estimates

Estimates are used to determine the amount of variable consideration in contracts, the standalone selling price among separate performance obligations and the measure of progress for contracts where revenue is recognized over time. The Company reviews and updates these estimates regularly.

Some contracts with customers include variable consideration primarily related to volume rebates. The Company estimates variable consideration at the most likely amount to determine the total consideration which the Company expects to be entitled. Estimated amounts are included in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The Company's estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of anticipated performance and all information (historical, current and forecasted) that is reasonably available.

3. Acquisitions

2021

During the year ended December 31, 2021, the Company acquired nine businesses in separate transactions for total consideration of \$1,125,077, net of cash acquired of \$19,040 and including contingent consideration of \$13,002. These businesses were acquired to complement and expand upon existing operations within the Clean Energy & Fueling, Engineered Products, Imaging & Identification, and Pumps & Process Solutions segments. The goodwill recorded as a result of these acquisitions represents the economic benefits expected to be derived from the workforce of the acquired businesses and operational synergies. Goodwill of \$195,127 is deductible for income tax purposes and \$386,990 is non-deductible for income tax purposes for these acquisitions.

RegO

On December 28, 2021, the Company acquired 100% of the voting stock of ECI Holding Company, LLC ("RegO"), a provider of highly-engineered, mission-critical components and services that facilitate the production, storage, and distribution of cryogenic gases, for \$624,693, net of cash acquired. The RegO acquisition strengthens the Company's offering for the hydrogen ("H2"), liquefied natural gas ("LNG"), and liquefied petroleum gas ("LPG") applications, as well as Dover's participation in the attractive cryogenic industrial gases end market within the Clean Energy & Fueling segment. In connection with this acquisition, the Company recorded goodwill of \$165,810 deductible for income tax purposes and \$111,166 non-deductible for income tax purposes and intangible assets of \$173,000 for customer intangibles, \$40,000 for patents and \$21,000 for trademarks. The fair value for customer intangibles at the acquisition date was determined using the multi-period excess earnings method under the income approach. The fair value measurements of intangible assets are based on significant unobservable inputs, and thus represent Level 3 inputs. Significant assumptions used in assessing the fair values of intangible assets include discounted future cash flows, customer attrition rates and discount rates. The fair value of assets acquired also includes trade receivables of \$34,252. The gross amount is \$34,623, of which \$371 is expected to be uncollectible. The fair values of the assets acquired and liabilities assumed, and the related tax balances, are based on preliminary estimates and assumptions. These preliminary estimates and assumptions could change significantly during the measurement period as the Company finalizes the valuations of the assets acquired and liabilities assumed, and the related tax balances.

(Amounts in thousands except share data and where otherwise indicated)

The following presents the preliminary allocation of purchase price, net of cash acquired of \$10,382, to the assets acquired and liabilities assumed under the RegO acquisition, based on their estimated fair values at acquisition date:

	Total
Accounts receivable	\$ 34,252
Inventories	77,954
Other current assets	2,958
Property, plant and equipment	52,053
Goodwill	276,976
Intangible assets	234,000
Other assets and deferred charges	884
Current liabilities	(19,480)
Non-current liabilities	(34,904)
Net assets acquired	\$ 624,693

Acme Cryogenics

On December 16, 2021, the Company acquired 100% of the voting stock of Acme Cryo Intermediate Inc. ("Acme Cryogenics"), a provider of highly-engineered, mission-critical components and services that facilitate the production, storage, and distribution of cryogenic gases, for \$293,522, net of cash acquired. The Acme Cryogenics acquisition strengthens the Company's offering for the H2, LNG, and LPG applications, as well as Dover's participation in the attractive cryogenic industrial gases end market within the Clean Energy & Fueling segment. In connection with this acquisition, the Company recorded goodwill of \$169,209 non-deductible for income tax purposes and intangible assets of \$99,000 for customer intangibles, \$21,800 for unpatented technology and \$6,500 for trademarks. The fair value for customer intangibles at the acquisition date was determined using the multi-period excess earnings method under the income approach. The fair value measurements of intangible assets are based on significant unobservable inputs, and thus represent Level 3 inputs. Significant assumptions used in assessing the fair values of intangible assets include discounted future cash flows, customer attrition rates and discount rates. The fair value of assets acquired also includes trade receivables of \$15,130. The gross amount is \$15,798, of which \$668 is expected to be uncollectible. The fair values of the assets acquired and liabilities assumed, and the related tax balances, are based on preliminary estimates and assumptions. These preliminary estimates and assumptions could change significantly during the measurement period as the Company finalizes the valuations of the assets acquired and liabilities assumed, and the related tax balances.

The following presents the preliminary allocation of purchase price to the assets acquired and liabilities assumed under the Acme Cryogenics acquisition, based on their estimated fair values at acquisition date:

	Total
Current assets, net of cash acquired	\$ 29,345
Property, plant and equipment	8,750
Goodwill	169,209
Intangible assets	127,300
Other assets and deferred charges	5,057
Current liabilities	(9,072)
Non-current liabilities	(37,067)
Net assets acquired	\$ 293,522

Other acquisitions

On October 15, 2021, the Company acquired 100% of the voting stock of LIQAL B.V. ("LIQAL"), a turnkey supplier of LNG, hydrogen refueling equipment and solutions, and micro liquefaction solutions, for \$27,701, net of cash acquired and including contingent consideration. The LIQAL acquisition strengthens the Company's offering of LNG and hydrogen products and solutions, as well as significant innovation capabilities and proprietary technologies, within the Clean Energy & Fueling segment. In connection with this acquisition, the Company recorded goodwill of \$23,473 and intangible assets of \$8,235, primarily related to customer intangibles.

(Amounts in thousands except share data and where otherwise indicated)

On September 15, 2021, the Company acquired 100% of the voting stock of The Espy Corporation ("Espy"), a manufacturer of advanced electronic radio frequency sensor systems, for \$60,457, net of cash acquired. The Espy acquisition strengthens the Company's offering of complete signal intelligence systems with integrated software within the Engineered Products segment. In connection with this acquisition, the Company recorded goodwill of \$29,317 and intangible assets of \$21,100, primarily related to customer intangibles. The Espy acquisition will be treated as an asset acquisition for U.S. income tax purposes, resulting in the goodwill and intangibles being classified as tax deductible.

On July 23, 2021, the Company acquired 100% of the voting stock of CDS Visual, Inc. ("CDS Visual"), a leading provider of 3D visualization solutions tailored for industrial applications, for \$29,147, net of cash acquired. The CDS Visual acquisition extends the Company's reach of customer-facing digital capabilities within the Engineered Products segment. In connection with this acquisition, the Company recorded goodwill of \$20,863 and intangible assets of \$9,930, primarily related to technology.

On June 24, 2021, the Company acquired 100% of the voting stock of Blue Bite LLC ("Blue Bite"), a leading provider of consumer engagement and brand protection software solutions, for \$30,143, net of cash acquired and including contingent consideration. The Blue Bite acquisition strengthens the Company's offering of product traceability and authentication solutions within the Imaging & Identification segment. In connection with this acquisition, the Company recorded goodwill of \$20,458 and intangible assets of \$13,250, primarily related to technology.

On June 23, 2021, the Company acquired 100% of the voting stock of Quantex Arc Limited ("Quantex"), a leading provider of single-use, recyclable pumps, for \$23,747, net of cash acquired and including contingent consideration. The Quantex acquisition enhances the offering of single-use pumps for biopharma and other hygienic applications within the Pumps & Process Solutions segment. In connection with this acquisition, the Company recorded goodwill of \$14,327 and intangible assets of \$11,034, primarily related to patented technology.

On April 19, 2021, the Company acquired 100% of the voting stock of AvaLAN Wireless Systems, Incorporated ("AvaLAN"), a leading provider of secure wireless communications solutions for the convenience and fuel retail industry, for \$34,144, net of cash acquired. The AvaLAN acquisition extends the Company's reach into the systems and software offering within the Clean Energy & Fueling segment. In connection with this acquisition, the Company recorded goodwill of \$26,803 and intangible assets of \$14,630, primarily related to customer intangibles.

One other immaterial acquisition was completed during the year ended December 31, 2021, within the Pumps & Process Solutions segment.

The following presents, for the seven acquisitions other than RegO and Acme Cryogenics, the preliminary allocation of purchase price to the assets acquired and liabilities assumed, based on their estimated fair values at acquisition date:

	Total
Current assets, net of cash acquired	\$ 12,751
Property, plant and equipment	8,272
Goodwill	135,932
Intangible assets	78,179
Other assets and deferred charges	4,485
Current liabilities	(15,368)
Non-current liabilities	(17,389)
Net assets acquired	\$ 206,862

The acquisition-related costs incurred for all 2021 acquisitions are not material.

(Amounts in thousands except share data and where otherwise indicated)

The amounts assigned to goodwill and major intangible asset classifications for all 2021 acquisitions were as follows:

	Amo	unt allocated	Useful life (in years)
Goodwill - tax deductible	\$	195,127	na
Goodwill - non deductible		386,990	na
Customer intangibles		310,819	12 - 15
Patents		49,056	7 - 12
Unpatented technology		44,180	7 - 12
Trademarks		35,424	15 - 16
	\$	1,021,596	

2020

During the year ended December 31, 2020, the Company acquired six businesses in separate transactions for total consideration of \$335,786, net of cash acquired. These businesses were acquired to complement and expand upon existing operations within the Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions, and Engineered Products segments. The goodwill recorded as a result of these acquisitions represents the economic benefits expected to be derived from product line expansions and operational synergies.

On December 30, 2020, the Company acquired 100% of the voting stock of Innovative Control Systems, Inc. ("ICS"), a leading provider of car wash controllers, payment terminals, point-of-sale and wash site management software solutions, for \$77,030, net of cash acquired. The ICS acquisition enhances the Clean Energy & Fueling segment's participation in the growing vehicle wash market and enhances the Company's offerings, business mix and recurring revenue stream with high-value hardware and software solutions critical to vehicle wash workflows and operations. In connection with this acquisition, the Company recorded goodwill of \$47,339 and intangible assets of \$33,525, primarily related to customer intangibles.

On August 20, 2020, the Company acquired 100% of the voting stock of Solaris Laser S.A. ("Solaris"), a global manufacturer of product identification and traceability solutions, for \$18,680, net of cash acquired. The Solaris acquisition enhances the Imaging & Identification segment's growing laser technology product line and further strengthens its position as a leading provider of marking and coding equipment and solutions. In connection with this acquisition, the Company recorded goodwill of \$12,230 and intangible assets of \$3,280, primarily related to unpatented technology.

On April 30, 2020, the Company acquired 100% of the voting stock of Em-tec GmbH ("Em-tec"), a leading designer and manufacturer of flow measurement devices that serve a wide array of medical and biopharmaceutical applications, for \$30,396, net of cash acquired. The Em-tec acquisition further expands the Company's reach into biopharma and other hygienic applications and enhances its portfolio of flow control technologies within the Pumps & Process Solutions segment. In connection with this acquisition, the Company recorded goodwill of \$19,572 and intangible assets of \$8,344, primarily related to customer intangibles.

On February 18, 2020, the Company acquired 100% of the voting stock of So. Cal. Soft-Pak, Incorporated ("Soft-Pak"), a leading specialized provider of integrated back office, route management and customer relationship management software solutions to the waste and recycling fleet industry, for \$45,500, net of cash acquired. The Soft-Pak acquisition strengthens the digital offerings within the Engineered Products segment. In connection with this acquisition, the Company recorded goodwill of \$33,183 and intangible assets of \$12,800, primarily related to customer intangibles.

On January 24, 2020, the Company acquired 100% of the voting stock of Sys-Tech Solutions, Inc. ("Systech"), a leading provider of product traceability, regulatory compliance and brand-protection software and solutions to pharmaceutical and consumer products manufacturers, for \$161,830, net of cash acquired. The Systech acquisition strengthens the portfolio of solutions offered by the Imaging & Identification segment. In connection with this acquisition, the Company recorded goodwill of \$91,493 and intangible assets of \$76,100, primarily related to customer intangibles.

One other immaterial acquisition was completed during the year ended December 31, 2020, within the Pumps & Process Solutions segment.

(Amounts in thousands except share data and where otherwise indicated)

The following presents the allocation of purchase price to the assets acquired and liabilities assumed, based on their estimated fair values at acquisition date:

	Total
Current assets, net of cash acquired	\$ 44,159
Property, plant and equipment	8,424
Goodwill	205,805
Intangible assets	134,049
Other assets and deferred charges	12,986
Current liabilities	(34,803)
Non-current liabilities	(34,834)
Net assets acquired	\$ 335,786

The amounts assigned to goodwill and major intangible asset classifications were as follows:

			Useful life
	Amo	unt allocated	(in years)
Goodwill - tax deductible	\$	33,183	na
Goodwill - non deductible		172,622	na
Customer intangibles		103,310	10 - 14
Unpatented technology		21,125	5 - 9
Trademarks		9,614	15
	\$	339,854	

2019

During the year ended December 31, 2019, the Company acquired three businesses in separate transactions for total consideration of \$216,398, net of cash acquired and including contingent consideration. On May 7, 2019, the Company acquired the assets of the All-Flo Pump Company, Limited business, within the Pumps & Process Solutions segment, for total consideration of \$39,954. On January 25, 2019, the Company acquired the assets of Belanger, Inc., within the Clean Energy & Fueling segment for \$175,350, net of cash acquired.

One other immaterial acquisition was completed during the year ended December 31, 2019, which included contingent consideration, within the Pumps & Process Solutions segment.

The following presents the allocation of purchase price to the assets acquired and liabilities assumed, based on their estimated fair values at acquisition date:

	 Total
Current assets, net of cash acquired	\$ 14,018
Property, plant and equipment	1,030
Goodwill	119,512
Intangible assets	91,980
Other assets and deferred charges	20
Current liabilities	(10,162)
Net assets acquired	\$ 216,398

(Amounts in thousands except share data and where otherwise indicated)

The amounts assigned to goodwill and major intangible asset classifications were as follows:

	Amo	ınt allocated	(in years)
Goodwill	\$	119,512	na
Customer intangibles		68,500	9 - 13
Patents		16,000	9
Trademarks		7,480	15
	\$	211,492	

Pro forma Information (Unaudited)

The following unaudited pro forma results of operations reflect the 2021 acquisitions of RegO and Acme Cryogenics as if they had occurred on January 1, 2020. The pro forma information is not necessarily indicative of the results that actually would have occurred, nor does it indicate future operating results of the combined companies. The pro forma earnings are adjusted to reflect the comparable impact of additional depreciation and amortization expense, net of tax, resulting from the fair value measurement of tangible and intangible assets; nonrecurring acquisition-related costs, net of tax, of \$5,855; and inventory step-up charges, net of tax, of \$15,082. These unaudited pro forma adjustments are based upon preliminary purchase price allocations. The actual revenues and earnings for RegO and Acme Cryogenics from the date of acquisition on December 28, 2021 and December 16, 2021, respectively, to December 31, 2021 were not material.

	Yea	ars Ended December 31,
	20	21 2020
Revenue:		
As reported	\$ 7	7,907,081 \$ 6,683,760
Pro forma (unaudited)	8	8,163,185 6,920,929
Earnings:		
As reported	\$ 1	1,123,818 \$ 683,451
Pro forma (unaudited)	1	1,145,106 669,458

The pro forma results for the remaining seven acquisitions in 2021, as well as the acquisitions in 2020 and 2019 are not presented as they are not considered material.

4. Dispositions

Management evaluates Dover's businesses periodically for their strategic fit within its operations and may from time to time sell or discontinue certain operations for various reasons.

2021

On December 1, 2021, the Company completed the sale of Unified Brands ("UB"), a wholly owned subsidiary of the Company. The Company recognized total consideration of \$229,024. This sale resulted in a preliminary pre-tax gain on disposition of \$181,615 included within the Consolidated Statements of Earnings and within the Climate & Sustainability Technologies segment for the year ended December 31, 2021. The preliminary total consideration and preliminary pre-tax gain on disposition are subject to standard working capital adjustments. The sale does not represent a strategic shift that will have a major effect on operations and financial results and, therefore, did not qualify for presentation as a discontinued operation.

On November 16, 2021, the Company disposed its equity method investment in Race Winning Brands ("RWB") for a total consideration of \$45,958, resulting in a recognized gain of \$24,723 included within the Consolidated Statements of Earnings and within the Engineered Products segment for the year ended December 31, 2021.

(Amounts in thousands except share data and where otherwise indicated)

2020

On March 6, 2020, the Company completed the sale of the Chino, California branch of The AMS Group ("AMS Chino"), a wholly owned subsidiary of the Company. The Company recognized total consideration of \$15,400, which included a working capital adjustment. This sale resulted in a pre-tax gain on disposition of \$5,213 included within the Consolidated Statements of Earnings and within the Climate & Sustainability Technologies segment for the year ended December 31, 2020. The sale did not represent a strategic shift that had a major effect on operations and financial results and, therefore, did not qualify for presentation as a discontinued operation.

2019

On March 29, 2019, the Company entered into a definitive agreement to sell Finder Pompe S.r.l ("Finder"), a wholly owned subsidiary, to Gruppo Aturia S.p.A ("Aturia"). As of March 31, 2019, Finder met the criteria to be classified as held for sale. The Company classified Finder's assets and liabilities separately on the consolidated balance sheet as of March 31, 2019.

Based on the total consideration from the sale, net of selling costs, the Company recorded a loss on the assets held for sale of \$46,946 in the Consolidated Statements of Earnings during the three months ended March 31, 2019. The loss was comprised of an impairment on assets held for sale of \$21,607 and \$25,339 of foreign currency translation losses reclassified out of accumulated other comprehensive losses.

On April 2, 2019, Dover completed the sale of Finder to Aturia, which generated total cash proceeds of \$24,218. The Finder business was included in the results of the Pumps & Process Solutions segment. The sale did not represent a strategic shift that had a major effect on operations and financial results and, therefore, did not qualify for presentation as a discontinued operation.

5. Inventories, net

The components of inventories, net were as follows:

	December 31, 2021	December 31, 2020
Raw materials	\$ 671,195	\$ 497,604
Work in progress	271,659	152,360
Finished goods	377,800	304,760
Subtotal	 1,320,654	954,724
Less reserves	(129,559)	(118,920)
Total	\$ 1,191,095	\$ 835,804

At December 31, 2021 and 2020, approximately 4% of the Company's total inventories were accounted for using the LIFO method.

6. Property, Plant and Equipment, net

The components of property, plant and equipment, net were as follows:

	Dece	December 31, 2021		December 31, 2020
Land	\$	63,656	\$	60,287
Buildings and improvements		582,314		570,366
Machinery, equipment and other		1,816,473		1,772,772
Property, plant and equipment, gross	·	2,462,443		2,403,425
Total accumulated depreciation		(1,505,133)		(1,506,099)
Property, plant and equipment, net	\$	957,310	\$	897,326

Total depreciation expense was \$147,309, \$140,008 and \$133,340 for the years ended December 31, 2021, 2020 and 2019, respectively.

(Amounts in thousands except share data and where otherwise indicated)

7. Leases

The Company adopted ASC Topic 842, Leases as of January 1, 2019, using the transition method per ASU No. 2018-11 wherein entities were allowed to initially apply the new leases standard at adoption date. Adoption of ASC Topic 842 resulted in an increase to total assets and liabilities due to the recording of operating lease ROU assets and operating lease liabilities of approximately \$163 million, as of January 1, 2019. The adoption did not materially impact the Company's Consolidated Statements of Earnings or Cash Flows. See Note 1 — Description of Business and Summary of Significant Accounting Policies for further detail on ROU assets and lease liabilities.

The components of lease costs were as follows:

	Years Ended December 31,							
	 2021		2020		2019			
Operating Lease Costs:								
Fixed	\$ 54,397	\$	52,875	\$	52,317			
Variable	6,281		5,973		6,584			
Short-term	17,847		18,436		17,387			
Total ⁽¹⁾	\$ 78,525	\$	77,284	\$	76,288			

⁽¹⁾ Finance lease cost and sublease income were immaterial.

Supplemental cash flow information related to leases was as follows:

	Years Ended December 31,							
		2021		2019				
Cash paid for amounts included in the measurement of lease liabilities:		_						
Operating cash flows for operating leases	\$	55,921	\$	53,903	\$	53,450		
Operating cash flows for finance leases		357		434		425		
Financing cash flows for finance leases		3,073		2,523		1,915		
Total	\$	59,351	\$	56,860	\$	55,790		
Right-of-use assets obtained in exchange for lease obligations:								
Operating leases	\$	47,666	\$	21,381	\$	41,598		
Financing leases		2,016		3,708		1,542		
Total	\$	49,682	\$	25,089	\$	43,140		

(Amounts in thousands except share data and where otherwise indicated)

Supplemental balance sheet information related to leases were as follows:

	December 31, 2021	December 31, 2020
Operating Leases		
Right-of-use assets:		
Other assets and deferred charges	\$ 169,022	\$ 170,089
Lease liabilities:		
Other accrued expenses	\$ 43,086	\$ 48,834
Other liabilities	134,448	133,989
Total operating lease liabilities	\$ 177,534	\$ 182,823
Finance Leases		
Right-of-use assets:		
Property, plant and equipment, net ⁽¹⁾	\$ 8,588	\$ 10,388
Lease liabilities:		
Other accrued expenses	\$ 2,475	\$ 2,641
Other liabilities	6,767	8,709
Total financing lease liabilities	\$ 9,242	\$ 11,350

⁽¹⁾ Finance lease right-of-use assets are recorded net of accumulated depreciation of \$7,675 and \$7,205 for the years ended December 31, 2021 and December 31, 2020, respectively.

The aggregate future lease payments for operating and finance leases as of December 31, 2021 were as follows:

	Operating	Finance
2022	\$ 47,649	\$ 2,822
2023	35,713	2,372
2024	28,124	1,845
2025	23,756	1,433
2026	16,058	1,204
Thereafter	39,539	767
Total lease payments	190,839	10,443
Less interest	(13,305)	(1,201)
Present value of lease liabilities	\$ 177,534	\$ 9,242

Average lease terms and discount rates were as follows:

	December 31, 2021	December 31, 2020	December 31, 2019
Weighted-average remaining lease term (years)			
Operating leases	5.8	5.9	5.9
Finance leases	4.2	4.8	5.9
Weighted-average discount rate			
Operating leases	2.7%	2.9%	3.2%
Finance leases	3.4%	3.6%	4 1%

(Amounts in thousands except share data and where otherwise indicated)

8. Credit Losses

Effective January 1, 2020, the Company adopted ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments prospectively. This ASU replaces the incurred loss impairment model with an expected credit loss impairment model for financial instruments, including trade receivables. The amendment requires entities to consider forward-looking information to estimate expected credit losses, resulting in earlier recognition of losses for receivables that are current or not yet due. Upon adoption, the Company recorded a noncash cumulative effect adjustment to retained earnings of \$2.1 million, net of \$0.6 million of income taxes, on the opening consolidated balance sheet as of January 1, 2020.

The Company is exposed to credit losses primarily through sales of products and services. Due to the short-term nature of such receivables, the estimate of amount of accounts receivable that may not be collected is based on aging of the accounts receivable balances and other historical and forward-looking information on the financial condition of the customers. Balances are written off when determined to be uncollectible.

Estimates are used to determine the allowance. It is based on assessment of anticipated payment and all other historical, current and forward-looking information that is reasonably available.

The following table provides a roll-forward of the allowance for credit losses that is deducted from the amortized cost basis of accounts receivable to present the net amount expected to be collected. The period prior to January 1, 2020 is presented in accordance with pre-adoption methodology of incurred loss impairment model.

	 2021	2020	2019
Beginning Balance, January 1,	\$ 40,474 \$	29,381 \$	28,469
Adoption of ASU 2016-13, cumulative-effect adjustment to retained earnings	_	2,706	_
Provision for expected credit losses, net of recoveries	5,053	11,171	5,933
Amounts written off charged against the allowance	(5,307)	(3,863)	(3,464)
Other, including dispositions and foreign currency translation	(94)	1,079	(1,557)
Ending balance, December 31	\$ 40,126 \$	40,474 \$	29,381

9. Goodwill and Other Intangible Assets

Goodwill

ASC 350, Intangibles - Goodwill and Other Intangibles, provides guidance on an entity's subsequent measurement and recognition of goodwill and other intangibles, including subsequent changes to carrying amounts, including impairment and fair value adjustments.

(Amounts in thousands except share data and where otherwise indicated)

The changes in the carrying value of goodwill by reportable operating segments were as follows:

	Engineered Products	Clo	ean Energy & Fueling	Imaging & Identification	I	Pumps & Process Solutions			Total
Goodwill	\$ 647,162	\$	873,381	\$ 977,069	9	810,597	\$	545,699	\$ 3,853,908
Accumulated impairment loss	(10,591)		_	_		(59,970)		_	(70,561)
Balance at January 1, 2020	636,571		873,381	977,069		750,627		545,699	3,783,347
Acquisitions	33,183		47,339	103,723		21,560		_	205,805
Disposition of business	_		_	_		_		(2,597)	(2,597)
Foreign currency translation	13,231		20,253	36,797		14,093		1,613	85,987
Balance at December 31, 2020	 682,985		940,973	1,117,589		786,280		544,715	4,072,542
Acquisitions	50,180		496,461	20,458 15,018		15,018 —		_	582,117
Purchase price adjustments	_		2,640	(1,926)		_		_	714
Disposition of business	_			_		_		(34,662)	(34,662)
Foreign currency translation	(9,882)		(12,383)	(29,919)		(8,459)		(1,246)	(61,889)
Balance at December 31, 2021 ⁽¹⁾	\$ 723,283	\$	1,427,691	\$ 1,106,202	9	792,839	\$	508,807	\$ 4,558,822

⁽¹⁾ The accumulated impairment loss as of December 31, 2021 was \$70,561, of which \$59,970 was associated with the Pumps & Process Solutions segment and \$10,591 was associated with the Engineered Products segment. These impairment losses were incurred prior to January 1, 2020.

During 2021 and 2020, the Company recognized additions of \$582,117 and \$205,805, respectively, to goodwill as a result of acquisitions as discussed in Note 3 — Acquisitions. During 2021 and 2020, the Company disposed of \$34,662 and \$2,597, respectively, of goodwill as a result of dispositions of businesses as discussed in Note 4 — Dispositions. The Company reallocated goodwill upon disposal based upon the fair value of the disposed business relative to the remaining entities in its reporting unit.

Annual impairment testing

The Company tests goodwill for impairment annually in the fourth quarter of each year, whenever events or circumstances indicate an impairment may have occurred, or when a change in the composition of reporting units occurs for other reasons, such as a change in segments.

The Company performed its annual goodwill impairment test during the fourth quarter of 2021 using a discounted cash flow analysis as discussed in Note 1 — Description of Business and Summary of Significant Accounting Policies. The Company performed a quantitative goodwill impairment test for each of its reporting units, concluding that the fair values of all of its reporting units were substantially in excess of their carrying values. No impairment of goodwill was required. As previously noted, the fair values of each of the Company's reporting units was determined using a discounted cash flow analysis which includes management's current assumptions as to future cash flows and long-term growth rates. The discount rates used in these analyses varied by reporting unit and were based on a capital asset pricing model and published relevant industry rates. The Company used discount rates commensurate with the risks and uncertainties inherent to each reporting unit and in our internally developed forecasts. Discount rates used in the 2021 reporting unit valuations ranged from 8.0% to 9.0%. Further, the Company assessed the current market capitalization, forecasts and the amount of headroom in the 2021 impairment test.

While the Company believes the assumptions used in the 2021 impairment analysis are reasonable and representative of expected results, actual results may differ from expectations.

(Amounts in thousands except share data and where otherwise indicated)

Intangible Assets

The Company's definite-lived and indefinite-lived intangible assets by major asset class were as follows:

	December 31, 2021						December 31, 2020													
	Gross Amount		Accumulated Amortization	N	et Carrying Amount		Gross Amount										Accumulated Amortization	N	Net Carrying Amount	
Amortized intangible assets:																				
Customer intangibles	\$ 1,829,492	\$	909,776	\$	919,716	\$	1,559,771	\$	834,798	\$	724,973									
Trademarks	263,367		116,633		146,734		233,205		103,907		129,298									
Patents	205,910		140,327		65,583		163,299		141,182		22,117									
Unpatented technologies	221,239		123,464		97,775		180,947		113,404		67,543									
Distributor relationships	84,204		55,260		28,944		87,028		51,611		35,417									
Drawings & manuals	27,792		27,303		489		29,198		26,193		3,005									
Other	22,347		18,775		3,572		23,901		19,324		4,577									
Total	 2,654,351		1,391,538		1,262,813		2,277,349		1,290,419		986,930									
Unamortized intangible assets:																				
Trademarks	 96,709		_		96,709		96,842		_		96,842									
Total intangible assets, net	\$ 2,751,060	\$	1,391,538	\$	1,359,522	\$	2,374,191	\$	1,290,419	\$	1,083,772									

The Company recorded \$439,479 of acquired intangible assets in 2021. See Note 3 — Acquisitions for further information.

Amortization expense was \$142,814, \$139,043 and \$138,947, including acquisition-related intangible amortization of \$141,134, \$137,071 and \$136,963, for the years ended December 31, 2021, 2020 and 2019, respectively.

Estimated future amortization expense related to intangible assets held at December 31, 2021 is as follows:

	Estimated Amortization
2022	\$ 153,937
2023	144,167
2024	139,696
2025	135,608
2026	127,539

10. Accrued Expenses and Other Liabilities

The following table details the major components of other accrued expenses:

	Dec	ember 31, 2021	December 31, 2020
Accrued rebates and volume discounts	\$	52,909	\$ 49,929
Taxes other than income (1)		49,992	52,829
Warranty		43,449	45,433
Operating lease liability		43,086	48,834
Accrued interest		20,426	20,822
Accrued commissions (non-employee)		16,273	14,243
Restructuring and exit costs		13,797	14,913
Other (none of which are individually significant)		107,165	96,634
Total other accrued expenses	\$	347,097	\$ 343,637

⁽¹⁾Taxes other than income includes a \$15.3 million and \$15.8 million deferral of employment taxes related to the U.S. CARES Act as of December 31, 2021 and 2020, respectively.

(Amounts in thousands except share data and where otherwise indicated)

The following table details the major components of other liabilities (non-current):

	Dec	ember 31, 2021	December 31, 2020
Defined benefit and other post-retirement benefit plans	\$	138,992	\$ 177,623
Operating lease liabilities		134,448	133,989
Deferred compensation		88,681	82,814
Unrecognized tax benefits		79,757	90,097
Legal and environmental		31,304	28,483
Deferred revenue		21,513	13,921
Warranty		5,119	5,655
Deferred employment taxes (1)		_	15,783
Other		32,728	21,949
Total other liabilities	\$	532,542	\$ 570,314

⁽¹⁾ Balance as of December 31, 2020 includes deferred employment taxes of \$15.8 million related to the U.S. CARES Act.

Warranty

Estimated warranty program claims are provided for at the time of sale. Amounts provided for are based on historical costs and adjusted for new claims. The changes in the carrying amount of product warranties were as follows:

	Years Ended December 31,									
		2021		2020		2019				
Beginning Balance, December 31 of the Prior Year	\$	51,088	\$	49,116	\$	50,073				
Provision for warranties		67,212		60,902		63,957				
Settlements made		(65,498)		(60,853)		(63,574)				
Other adjustments, including acquisitions and currency translation		(4,234)		1,923		(1,340)				
Ending Balance, December 31	\$	48,568	\$	51,088	\$	49,116				

11. Restructuring Activities

The Company initiated various restructuring programs and incurred severance and other restructuring costs by segment as follows:

	Years Ended December 31,					l,
		2021		2020		2019
Engineered Products	\$	9,507	\$	10,307	\$	3,155
Clean Energy & Fueling		3,609		6,681		4,943
Imaging & Identification		4,589		5,946		6,426
Pumps & Process Solutions		1,911		13,374		5,666
Climate & Sustainability Technologies		5,068		4,015		3,671
Corporate		2,021		4,145		2,961
Total	\$	26,705	\$	44,468	\$	26,822
These amounts are classified in the Consolidated Statements of Earnings as follows:	-					
Cost of goods and services	\$	12,895	\$	18,895	\$	8,910
Selling, general and administrative expenses		13,810		25,573		17,912
Total	\$	26,705	\$	44,468	\$	26,822

Total restructuring charges of \$26,705 incurred during the year ended December 31, 2021, were primarily a result of restructuring programs initiated in 2020 and 2021 in response to demand conditions, asset charges related to a product line exit, as well as broad-based operational efficiency initiatives focusing on footprint consolidation and IT centralization. Additional programs, beyond the scope of the announced programs may be implemented during 2022 with related restructuring charges.

(Amounts in thousands except share data and where otherwise indicated)

The \$26,705 of restructuring charges incurred during 2021 primarily included the following items:

- The Engineered Products segment recorded \$9,507 of restructuring charges related primarily to asset charges related to a product line exit.
- The Clean Energy & Fueling segment recorded \$3,609 of restructuring charges primarily due to asset charges, headcount reductions and facility
 exit costs.
- The Imaging & Identification segment recorded \$4,589 of restructuring charges related primarily to headcount reductions.
- The Pumps & Process Solutions segment recorded \$1,911 of restructuring charges related primarily to headcount reductions and asset charges.
- The Climate & Sustainability Technologies segment recorded \$5,068 of restructuring charges related primarily to headcount reductions and asset charges.
- Corporate recorded \$2,021 of restructuring charges primarily related to exit costs related to IT centralization initiatives.

Restructuring expenses incurred in 2020 and 2019 also included headcount reduction, targeted facility consolidations at certain businesses, and actions taken to optimize the Company's cost structure.

The following table details the Company's severance and other restructuring accrual activities:

	Severance	Exit		Total
Balance at January 1, 2019	\$ 24,284	\$	3,880	\$ 28,164
Restructuring charges	20,271		6,551	26,822
Payments	(29,887)		(3,383)	(33,270)
Other, including foreign currency translation	(917)		(4,409) (1)	(5,326)
Balance at December 31, 2019	 13,751		2,639	16,390
Restructuring charges	25,716		18,752	44,468
Payments	(29,768)		(6,035)	(35,803)
Other, including foreign currency translation	848		$(10,990)^{(1)}$	(10,142)
Balance at December 31, 2020	 10,547		4,366	14,913
Restructuring charges	11,561		15,144	26,705
Payments	(10,951)		(6,171)	(17,122)
Other, including foreign currency translation	(427)		$(10,272)^{(2)}$	(10,699)
Balance at December 31, 2021	\$ 10,730	\$	3,067	\$ 13,797

⁽¹⁾ Other activity in exit reserves primarily represents the non-cash write-off of certain long-lived assets and inventory in connection with certain facility closures and product

The restructuring accrual balances at December 31, 2021 primarily reflect restructuring plans initiated during the year.

⁽²⁾ Other activity in exit reserves primarily represents asset charges related to product line exit.

(Amounts in thousands except share data and where otherwise indicated)

12. Borrowings

Borrowings consist of the following:

	December 31, 20	021	December 31, 2020	
Short-term:				
Short-term borrowings	\$	702	\$	-
Commercial paper	10	5,000	_	-
Notes payable	\$ 10	5,702	\$ —	_

				Carrying	amo	unt ⁽¹⁾								
		Principal		Principal		Principal		Principal		Principal		ecember 31, 2021	Ι	December 31, 2020
Long-term:														
3.15% 10-year notes due November 15, 2025	\$	400,000	\$	397,389	\$	396,716								
1.25% 10-year notes due November 9, 2026 (euro-denominated)	€	600,000		674,217		724,310								
0.750% 8-year notes due November 4, 2027 (euro denominated)	€	500,000		561,293		603,107								
6.65% 30-year debentures due June 1, 2028	\$	200,000		199,356		199,255								
2.950% 10-year notes due November 4, 2029	\$	300,000		297,029		296,650								
5.375% 30-year debentures due October 15, 2035	\$	300,000		296,559		296,309								
6.60% 30-year notes due March 15, 2038	\$	250,000		248,166		248,053								
5.375% 30-year notes due March 1, 2041	\$	350,000		344,705		344,429								
Total long-term debt			\$	3,018,714	\$	3,108,829								

⁽¹⁾ Carrying amount is net of unamortized debt discount and deferred debt issuance costs. Total unamortized debt discounts were \$15.1 million and \$17.6 million as of December 31, 2021 and 2020, respectively. Total deferred debt issuance costs were \$12.5 million and \$14.4 million as of December 31, 2021 and 2020, respectively.

The discounts are being amortized to interest expense using the effective interest method over the life of the issuances. The deferred issuance costs are amortized on a straight-line basis over the life of the debt, as this approximates the effective interest method.

As of December 31, 2021, the Company maintained a \$1 billion five-year unsecured revolving credit facility (the "Credit Agreement") with a syndicate of banks, which expires on October 4, 2024. At the Company's election, loans under the Credit Agreement will bear interest at a base rate plus an applicable margin. The Credit Agreement requires the Company to pay a facility fee and imposes various restrictions on the Company such as, among other things, a requirement to maintain a minimum interest coverage ratio of EBITDA to consolidated net interest expense of not less than 3.0 to 1. The Company primarily uses this facility as liquidity back-up for its commercial paper program and for general corporate purposes. As of December 31, 2021, there were no outstanding borrowings under the Credit Agreement.

The Company was in compliance with all covenants in the Credit Agreement and other long-term debt covenants at December 31, 2021 and had an interest coverage ratio of consolidated EBITDA to consolidated net interest expense of 17.6 to 1.

As of December 31, 2021, the future maturities of long-term debt were as follows:

	Futui	re Maturities
2022	\$	_
2023		_
2024		_
2025		400,000
2026		679,810
2027 and thereafter		1,966,508
Total	\$	3,046,318

(Amounts in thousands except share data and where otherwise indicated)

Letters of Credit and other Guarantees

As of December 31, 2021, the Company had approximately \$155.9 million outstanding in letters of credit, surety bonds, and performance and other guarantees with financial institutions, which expire on various dates through 2029. These letters of credit and bonds are primarily issued as security for insurance, warranty and other performance obligations. In general, the Company would only be liable for the amount of these guarantees in the event of default in the performance of its obligations, the probability of which is believed to be remote.

13. Financial Instruments

Derivatives

The Company is exposed to market risk for changes in foreign currency exchange rates due to the global nature of its operations and certain commodity risks. In order to manage these risks, the Company has hedged portions of its forecasted sales and purchases, which occur within the next twelve months that are denominated in non-functional currencies, with currency forward contracts designated as cash flow hedges. At December 31, 2021 and 2020, the Company had contracts with U.S. dollar equivalent notional amounts of \$180,929 and \$173,674, respectively, to exchange foreign currencies, principally the euro, pound sterling, Swedish krona, Canadian dollar, Chinese yuan, and Swiss franc. The Company believes it is probable that all forecasted cash flow transactions will occur.

In addition, the Company had outstanding contracts at December 31, 2021 and 2020 with a total notional amount of \$108,736 and \$73,755, respectively, that are not designated as hedging instruments. These instruments are used to reduce the Company's exposure to operating receivables and payables that are denominated in non-functional currencies. Gains and losses on these contracts are recorded in other income, net in the Consolidated Statements of Earnings.

The following table sets forth the fair values of derivative instruments held by the Company as of December 31, 2021 and 2020 and the balance sheet lines in which they are recorded:

	Fair Value A	sset (Liability)	
	December 31, 2021	December 31, 2020	Balance Sheet Caption
Foreign currency forward	\$ 2,825	\$ 2,325	Prepaid and other current assets
Foreign currency forward	(433)	(2,057)	Other accrued expenses

For a cash flow hedge, the change in estimated fair value of a hedging instrument is recorded in accumulated other comprehensive earnings (loss), net of tax as a separate component of the Consolidated Statements of Stockholders' Equity and is reclassified into revenues and cost of goods and services in the Consolidated Statements of Earnings during the period in which the hedged transaction is recognized. The amount of gains or losses from hedging activity recorded in earnings is not significant and the amount of unrealized gains and losses from cash flow hedges that are expected to be reclassified to earnings in the next twelve months, is not significant; therefore, additional tabular disclosures are not presented. There are no amounts excluded from the assessment of hedge effectiveness, and the Company's derivative instruments that are subject to credit risk contingent features were not significant.

The Company is exposed to credit loss in the event of nonperformance by counterparties to the financial instrument contracts held by the Company; however, nonperformance by these counterparties is considered unlikely as the Company's policy is to contract with highly-rated, diversified counterparties.

The Company has designated the €600,000 and €500,000 of euro-denominated notes issued November 9, 2016 and November 4, 2019, respectively, as hedges of its net investment in euro-denominated operations. Changes in the value of the euro-denominated debt are recognized in foreign currency translation adjustments within other comprehensive earnings (loss) of the Consolidated Statements of Comprehensive Earnings to offset changes in the value of the net investment in euro-denominated operations. Changes in the value of the euro-denominated debt resulting from exchange rate differences are offset by changes in the net investment due to the high degree of effectiveness between the hedging instruments and the exposure being hedged.

(Amounts in thousands except share data and where otherwise indicated)

Amounts recognized in other comprehensive earnings (loss) for the gains (losses) on net investment hedges were as follows:

	2021	2020	2019	
Gain (loss) on euro-denominated debt	\$ 94,003	\$ (119,298)	\$	22,449
Tax (expense) benefit	(20,976)	26,957		(4,714)
Net gain (loss) on net investment hedges, net of tax	\$ 73,027	\$ (92,341)	\$	17,735

Fair Value Measurements

ASC 820, Fair Value Measurements and Disclosures, establishes a fair value hierarchy that requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the hierarchy is based on the lowest level of input that is significant to the fair value measurement. ASC 820 establishes three levels of inputs that may be used to measure fair value as follows:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs include inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices in active markets for similar assets and liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of assets or liabilities.

Level 3 inputs are unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

The Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2021 and 2020 were as follows:

		ember 31, 2021	December 31, 2020			
	I	Level 2	Level 2			
Assets:						
Foreign currency cash flow hedges	\$	2,825	\$	2,325		
Liabilities:						
Foreign currency cash flow hedges		433		2,057		

The derivative contracts are measured at fair value using models based on observable market inputs such as foreign currency exchange rates and interest rates; therefore, they are classified within Level 2 of the fair value hierarchy.

In addition to fair value disclosure requirements related to financial instruments carried at fair value, accounting standards require disclosures regarding the fair value of all of the Company's financial instruments.

The estimated fair value of long-term debt at December 31, 2021 and 2020 was \$3,440,501 and \$3,635,673, respectively. The estimated fair value of long-term debt is based on quoted market prices for similar instruments and is, therefore, classified as Level 2 within the fair value hierarchy.

The carrying values of cash equivalents, trade receivables, accounts payable and notes payable are reasonable estimates of their fair values as of December 31, 2021 and 2020 due to the short-term nature of these instruments.

(Amounts in thousands except share data and where otherwise indicated)

14. Income Taxes

Income taxes have been based on the following components of earnings before provision for income taxes in the Consolidated Statements of Earnings:

	Years Ended December 31,						
_	2021	2020			2019		
\$	835,773	\$	464,145	\$	448,301		
	565,053		377,589		394,708		
\$	1,400,826	\$	841,734	\$	843,009		
	\$ \$	2021 \$ 835,773 565,053	2021 \$ 835,773 \$ 565,053	2021 2020 \$ 835,773 \$ 464,145 565,053 377,589	2021 2020 \$ 835,773 \$ 464,145 \$ 565,053 377,589 \$ 377,589		

Income tax expense (benefit) for the years ended December 31, 2021, 2020 and 2019 is comprised of the following:

	Years Ended December 31,					
	 2021		2020		2019	
Current:	 					
U.S. federal	\$ 150,990	\$	79,305	\$	71,069	
State and local	28,106		13,312		16,709	
Foreign	154,147		97,106		102,284	
Total current	 333,243		189,723		190,062	
Deferred:	 					
U.S. federal	(14,143)		2,777		(6,033)	
State and local	3,165		(10,526)		1,770	
Foreign	(45,257)		(23,691)		(20,708)	
Total deferred	 (56,235)		(31,440)		(24,971)	
Total expense	\$ 277,008	\$	158,283	\$	165,091	

(Amounts in thousands except share data and where otherwise indicated)

Differences between the effective income tax rate and the U.S. federal income statutory tax rate are as follows:

	Years 1	Years Ended December 31,					
	2021	2020	2019				
U.S. federal income tax rate	21.0 %	21.0 %	21.0 %				
State and local taxes, net of federal income tax benefit	1.8	1.7	1.7				
Foreign operations tax effect	(0.2)	(0.8)	(1.3)				
Foreign tax credits	_	_	(0.1)				
Foreign-derived intangible income	(0.8)	(1.1)	(1.0)				
Share awards	(0.8)	(1.2)	(1.7)				
Dispositions	0.3	_	1.2				
Audit resolutions	(1.4)	(0.9)	0.3				
Other	(0.1)	0.1	(0.5)				
Effective tax rate	19.8 %	18.8 %	19.6 %				

The tax effects of temporary differences that give rise to deferred tax assets and liabilities are as follows:

	December 31, 2021			December 31, 2020
Deferred Tax Assets:	-	·		· · · · · · · · · · · · · · · · · · ·
Accrued compensation, principally postretirement and other employee benefits	\$	61,388	\$	60,797
Accrued expenses, principally for state income taxes, interest and warranty		30,143		32,418
Net operating loss and other carryforwards		334,483		319,291
Inventories, principally due to reserves for financial reporting purposes and capitalization for tax purposes		28,698		23,723
Accounts receivable, principally due to allowance for doubtful accounts		9,988		7,118
Accrued insurance		4,708		4,165
Long-term liabilities, principally warranty, environmental and exit costs		3,043		2,273
Lease obligations		41,653		40,984
Total gross deferred tax assets		514,104		490,769
Valuation allowance		(306,066)		(287,679)
Total deferred tax assets, net of valuation allowances	\$	208,038	\$	203,090
Deferred Tax Liabilities:				
Intangible assets, principally due to different tax and financial reporting bases and amortization lives	\$	(392,208)	\$	(387,897)
Property, plant and equipment, principally due to differences in depreciation		(77,918)		(62,667)
Lease right-of-use assets		(40,181)		(38,742)
Other liabilities		(28,786)		9,992
Total gross deferred tax liabilities		(539,093)		(479,314)
Net deferred tax liability	\$	(331,055)	\$	(276,224)
Classified as follows in the Consolidated Balance Sheets:				
Other assets and deferred charges	\$	33,062	\$	22,199
Deferred income taxes		(364,117)		(298,423)
	\$	(331,055)	\$	(276,224)

As of December 31, 2021, the Company had non-U.S loss carryforwards of \$1,128.7 million primarily resulting from non-operating activities. The entire balance of the non-U.S. losses as of December 31, 2021 is available to be carried forward, with \$274.4 million of these losses expiring during the years 2022 through 2042. The remaining \$854.3 million of such losses can be carried forward indefinitely.

The Company has \$305.1 million of state tax loss carryovers as of December 31, 2021. The balance of the state losses as of December 31, 2021 is available for carry over, with \$289.3 million of these losses expiring during the years 2022 and 2042, and the remaining \$15.8 million being carried over indefinitely.

(Amounts in thousands except share data and where otherwise indicated)

The Company maintains valuation allowances by jurisdiction against the deferred tax assets related to certain of these carryforwards for which it is more likely than not that some portion or all will not be realized.

Unrecognized Tax Benefits

The Company files federal, state, local and foreign tax returns. The Company is routinely audited by the tax authorities in these jurisdictions, and a number of audits are currently underway. It is reasonably possible during the next twelve months that uncertain tax positions may be settled, which could result in a decrease in the gross amount of unrecognized tax benefits. This decrease may result in an income tax benefit. Due to the potential for resolution of federal, state and foreign examinations, and the expiration of various statutes of limitation, the Company's gross unrecognized tax benefits balance may change within the next twelve months by a range of zero to \$30.6 million. All significant federal, state, local and international matters have been concluded through 2016. The Company believes adequate provision has been made for all income tax uncertainties.

The following table is a reconciliation of the beginning and ending balances of the Company's unrecognized tax benefits:

	Total
Unrecognized tax benefits at January 1, 2019	\$ 93,461
Additions based on tax positions related to the current year	4,493
Additions for tax positions of prior years	6,668
Reductions for tax positions of prior years	(9,217)
Cash settlements	(922)
Lapse of statutes	(11,269)
Unrecognized tax benefits at December 31, 2019	83,214
Additions based on tax positions related to the current year	 3,134
Additions for tax positions of prior years	5,490
Reductions for tax positions of prior years	(3,599)
Cash settlements	(6,214)
Lapse of statutes	(9,687)
Unrecognized tax benefits at December 31, 2020 (1)	72,338
Additions based on tax positions related to the current year	5,859
Additions for tax positions of prior years	3,784
Reductions for tax positions of prior years	(13,008)
Cash settlements	(1,490)
Lapse of statutes	(2,831)
Unrecognized tax benefits at December 31, 2021 (1)	\$ 64,652

⁽¹⁾ If recognized, the net amount of potential tax benefits that would impact the Company's effective tax rate is \$58.0 million. During the years ended December 31, 2021, 2020 and 2019, the Company recorded income of \$2.7 million, \$0.1 million and \$0.6 million, respectively, as a component of provision for income taxes related to the accrued interest and penalties on net reductions to unrecognized tax benefits. The Company had accrued interest and penalties of \$15.1 million at December 31, 2021 and \$17.8 million at December 31, 2020, which are not included in the above table.

(Amounts in thousands except share data and where otherwise indicated)

15. Equity and Cash Incentive Program

The Company's share-based awards are typically granted annually at its regularly scheduled first quarter Compensation Committee meeting. For the years presented herein, employee awards were made pursuant to the terms of the Company's 2021 Omnibus Incentive Plan (the "2021 Plan") and 2012 Equity and Cash Incentive Plan (the "2012 Plan").

On May 7, 2021, the shareholders approved the 2021 Plan, to replace the 2012 Plan, which otherwise would have terminated according to its terms on May 3, 2022. Upon approval of the 2021 Plan, no additional awards could be granted under the 2012 Plan, and the remaining 4,888,197 shares available for additional award grant purposes under the former 2012 Plan became available for issuance under the 2021 Plan. The 2021 Plan provides for stock options and stock-settled appreciation rights ("SARs"), restricted stock awards, restricted stock unit awards, performance share awards, cash performance awards, directors' shares and deferred stock units. Under the 2021 Plan, a total of 8,300,000 newly authorized shares of common stock are reserved for issuance, resulting in a total of 13,188,197 authorized shares available for issuance. These shares are subject to adjustments resulting from stock dividends, stock splits, recapitalizations, reorganizations and other similar changes.

Under the 2012 Plan, which was approved by shareholders on May 3, 2012 to replace the 2005 Equity and Cash Incentive Plan (the "2005 Plan"), a total of 17,000,000 shares of common stock were reserved for grants (stock options and SARs, restricted stock unit awards, performance share awards, cash performance awards, directors' shares and deferred stock units) to key personnel. Of these 17,000,000 shares, 4,888,197 shares remained available under the 2012 Plan as of the date that shareholders approved the 2021 Plan, and those remaining shares became available for issuance under the 2021 Plan.

Officers and other key employees, as well as non-employee directors, are eligible to participate in the 2021 Plan, and were also eligible under the 2012 Plan, which had a ten-year term between May 3, 2012 to May 3, 2022.

Stock-based compensation costs are reported within selling, general and administrative expenses in the Consolidated Statements of Earnings. The following table summarizes the Company's compensation expense relating to all stock-based incentive plans:

	 Years Ended December 31,				
	2021		2020	2019	
Pre-tax stock-based compensation expense	\$ 31,111	\$	25,026	\$	29,702
Tax benefit	(2,859)		(2,731)		(2,490)
Total stock-based compensation expense, net of tax	\$ 28,252	\$	22,295	\$	27,212

SARs

The exercise price per share for SARs is equal to the closing price of the Company's stock on the New York Stock Exchange on the date of grant. New common shares are issued when SARs are exercised. The period during which SARs are exercisable is fixed by the Company's Compensation Committee at the time of grant. Generally, the SARs vest after three years of service and expire at the end of ten years.

In 2021, 2020 and 2019, the Company issued SARs covering 413,173, 390,780 and 615,089 shares, respectively. The fair value of each SAR grant was estimated on the date of grant using a Black-Scholes option-pricing model with the following assumptions:

	2021	2020	2019
Risk-free interest rate	0.59 %	1.44 %	2.51 %
Dividend yield	1.62 %	1.65 %	2.13 %
Expected life (years)	5.5	5.5	5.6
Volatility	30.49 %	22.76 %	22.35 %
Grant price	\$122.73	\$119.86	\$91.20
Fair value at date of grant	\$29.08	\$22.54	\$17.55

Expected volatilities are based on Dover's stock price history, including implied volatilities from traded options on Dover stock. The Company uses historical data to estimate SAR exercise and employee termination patterns within the valuation

(Amounts in thousands except share data and where otherwise indicated)

model. The expected life of SARs granted is derived from the output of the option valuation model and represents the average period of time that SARs granted are expected to be outstanding. The interest rate for periods within the contractual life of the awards is based on the U.S. Treasury yield curve in effect at the time of grant.

A summary of activity relating to SARs granted under the 2021 Plan and the predecessor plans for the year ended December 31, 2021 is as follows:

		SARs	
	Number of Shares	Weighted Average Remaining Contractual Term (Years)	
Outstanding at January 1, 2021	2,979,933	\$ 79.36	
Granted	413,173	122.73	
Forfeited / expired	(89,899)	110.58	
Exercised	(925,823)	69.99	
Outstanding at December 31, 2021	2,377,384	89.49	6.5
Exercisable at December 31, 2021	1,125,435	\$ 67.69	4.8

The following table summarizes information about outstanding SARs at December 31, 2021:

SARs Outstanding							SARs Exercisable								
Range of Exercise Prices	Number of Shares		Weighted Average Exercise Price	Weighted Average Remaining Life in Years		Aggregate Intrinsic Value	Number of Shares		Weighted Average Exercise Price	Weighted Average Remaining Life in Years	Aggregate Intrinsic Value				
\$48.28 - \$82.51	1,125,435	\$	67.69	4.8	9	128,213	1,125,435	\$	67.69	4.8	\$	128,213			
\$84.94 - \$119.86	868,923	\$	103.04	7.5		68,262	_	\$	_	0		_			
\$122.73 - \$155.65	383,026	\$	122.82	9.1		22,516	_	\$	_	0		_			
	2,377,384				9	218,991	1,125,435				\$	128,213			

Unrecognized compensation expense related to SARs not yet exercisable was \$8,800 at December 31, 2021. This cost is expected to be recognized over a weighted average period of 1.7 years.

Other information regarding the exercise of SARs is listed below:

	2021	2020	2019
Fair value of SARs that became exercisable	\$ 10,199	\$ 8,585	\$ 8,611
Aggregate intrinsic value of SARs exercised	\$ 62,895	\$ 55.031	\$ 89,473

Performance Share Awards

Performance share awards granted are expensed over the three-year requisite performance and service period. Awards become vested if (1) the Company achieves certain market conditions or specified internal metrics and (2) the employee remains continuously employed by the Company during the performance period. Partial vesting may occur after separation from service in the case of certain terminations not for cause and for retirements.

(Amounts in thousands except share data and where otherwise indicated)

In 2021, 2020 and 2019, the Company issued performance shares covering 50,371, 49,056 and 35,172 shares, respectively.

The performance share awards granted in 2021 and 2020 are market condition awards as attainment is based on Dover's performance relative to its peer group (companies listed under the S&P 500 Industrials sector) for the relevant performance period. The performance period and vesting period for these awards is approximately three years. These awards were valued on the date of grant using the Monte Carlo simulation model (a binomial lattice-based valuation model), and are generally recognized ratably over the vesting period, and the fair value is not subject to change based on future market conditions. The assumptions used in determining the fair value of the performance shares granted in 2021 and 2020 were as follows:

	2021	2020
Risk-free interest rate	0.19 %	1.40 %
Dividend yield	1.62 %	1.65 %
Expected life (years)	2.9	2.9
Volatility	31.90 %	23.30 %
Grant price	\$122.73	\$119.86
Fair value per share at date of grant	\$148.29	\$165.71

The performance share awards granted in 2019 are considered performance condition awards as attainment is based on Dover's performance relative to established internal metrics. The fair value of these awards was determined using Dover's closing stock price on the date of grant. The expected attainment of the internal metrics for these awards is analyzed each reporting period, and the related expense is adjusted up or down based on expected attainment, if that attainment differs from previous estimates. The cumulative effect on current and prior periods of a change in attainment is recognized in selling, general and administrative expenses in the Consolidated Statements of Earnings in the period of change.

The fair value and average attainment used in determining compensation cost of the performance shares issued in 2019 are as follows for the year ended December 31, 2021:

	2019
Fair value per share at date of grant	\$91.20
Average attainment rate reflected in expense	260.6 %

A summary of activity for performance share awards for the year ended December 31, 2021 is as follows:

	Number of Shares	Av Gra	eighted verage int-Date ir Value
Unvested at January 1, 2021	77,979	\$	138.14
Granted	50,371		148.29
Vested	(27,031)		91.37
Unvested at December 31, 2021	96,129	\$	156.88

Unrecognized compensation expense related to unvested performance shares as of December 31, 2021 was \$7,743, which will be recognized over a weighted average period of 1.7 years.

Restricted Stock Units

The Company also has restricted stock authorized for grant. Common stock of the Company may be granted at no cost to certain officers and key employees. In general, restrictions limit the sale or transfer of these shares during a three-year period, and restrictions lapse proportionately over the three-year period. The Company granted 87,177, 83,512 and 124,929 of restricted stock units in 2021, 2020 and 2019, respectively. The fair value of these awards was determined using Dover's closing stock price on the date of grant, which were \$122.73, \$119.86, and \$91.20 in 2021, 2020 and 2019, respectively.

(Amounts in thousands except share data and where otherwise indicated)

A summary of activity for restricted stock units for the year ended December 31, 2021 is as follows:

	Number of Shares	A Gr	Veighted Average rant-Date air Value
Unvested at January 1, 2021	252,907	\$	93.43
Granted	87,177		122.73
Forfeited	(10,741)		114.85
Vested	(126,661)		91.75
Unvested at December 31, 2021	202,682	\$	107.03

Unrecognized compensation expense relating to unvested restricted stock units as of December 31, 2021 was \$12,013, which will be recognized over a weighted average period of 1.3 years.

Directors' Shares

The Company issued the following shares to its non-employee directors as partial compensation for serving as directors of the Company:

	Years ended December 31,				
	2021	2019			
Aggregate shares granted	7,917	9,854	10,838		
Deferred stock units	(5,322)	(6,278)	(6,168)		
Net shares issued	2,595	3,576	4,670		

16. Commitments and Contingent Liabilities

Guarantees

The Company has provided typical indemnities in connection with sales of certain businesses and assets, including representations and warranties and related indemnities for environmental, health and safety, tax and employment matters. The Company does not have any material liabilities recorded for these indemnifications and is not aware of any claims or other information that would give rise to material payments under such indemnities.

Litigation

A few of the Company's subsidiaries are involved in legal proceedings relating to the cleanup of waste disposal sites identified under federal and state statutes which provide for the allocation of such costs among "potentially responsible parties." In each instance, the extent of the Company's liability appears to be relatively insignificant in relation to the total projected expenditures and the number of other "potentially responsible parties" involved and is anticipated to be immaterial to the Company. In addition, a few of the Company's subsidiaries are involved in ongoing remedial activities at certain current and former plant sites, in cooperation with regulatory agencies, and appropriate estimated liabilities have been established. See Note 10 — Accrued Expenses and Other Liabilities for additional details.

The Company and some of its subsidiaries are also parties to a number of other legal proceedings incidental to their businesses. These proceedings primarily involve claims by private parties alleging injury arising out of use of the Company's products, patent infringement, employment matters and commercial disputes. Management and legal counsel, at least quarterly, review the probable outcome of such proceedings, the costs and expenses reasonably expected to be incurred and currently accrued to-date and consider the availability and extent of insurance coverage. The Company has estimated liabilities for these other legal matters that are probable and estimable, and at December 31, 2021 and 2020, these liabilities were immaterial. While it is not possible at this time to predict the outcome of these legal actions, in the opinion of management, based on the aforementioned reviews, the Company is not currently involved in any legal proceedings which, individually or in the aggregate, could have a material effect on its financial position, results of operations, or cash flows.

(Amounts in thousands except share data and where otherwise indicated)

17. Employee Benefit Plans

The Company offers defined contribution retirement plans which cover the majority of its U.S. employees, as well as employees in certain other countries. The Company's expense relating to defined contribution plans was \$59,719, \$52,629 and \$50,031 for the years ended December 31, 2021, 2020 and 2019, respectively.

The Company sponsors qualified defined benefit pension plans covering certain employees of the Company and its subsidiaries. The plans' benefits are generally based on years of service and employee compensation. The Company also provides to certain management employees, through non-qualified plans, supplemental retirement benefits in excess of qualified plan limits imposed by federal tax law.

In July 2013, the Company announced that, after December 31, 2013, the U.S. qualified and non-qualified defined benefit plans would be closed to new employees. All pension-eligible employees as of December 31, 2013 will continue to earn a pension benefit through December 31, 2023 as long as they remain employed by an operating company participating in the impacted plans. The Company also announced that effective January 1, 2024, the plans would be frozen to any future benefit accruals.

The Company also maintains other post-retirement benefit plans. These plans are closed to new entrants and not considered to be significant. The supplemental and other post-retirement benefit plans are supported by the general assets of the Company.

(Amounts in thousands except share data and where otherwise indicated)

Obligations and Funded Status

The following tables summarize the change in benefit obligations, change in plan assets, and funded status associated with the Company's significant defined benefit plans and the amounts recognized in the consolidated balance sheets at December 31, 2021 and 2020:

	Qualified Defined Benefits									Non-Qualified Supplemental				
	U.S. Plan Non-U.S. Plans						Benefits			picincitui				
		2021		2020		2021		2020		2021		2020		
Change in benefit obligation:					_									
Benefit obligation at beginning of year	\$	524,181	\$	490,228	\$	340,829	\$	296,534	\$	51,194	\$	60,183		
Service cost		7,134		6,824		5,749		5,345		1,561		1,272		
Interest cost		13,605		16,272		3,590		3,697		1,232		1,765		
Plan participants' contributions		_		_		2,009		1,707		_		_		
Benefits paid		(18,221)		(36,303)		(7,519)		(8,613)		(5,331)		(12,324)		
Actuarial (gain) loss ⁽¹⁾		(19,393)		47,160		(20,766)		19,558		(4,568)		298		
Amendments		_		_		1,828		(1,401)		_		_		
Settlements and curtailments		(28,960)		_		(3,517)		(294)		(1,183)		_		
Currency translation and other		_		-		(7,488)		24,296		_		_		
Benefit obligation at end of year		478,346		524,181		314,715		340,829		42,905		51,194		
Change in plan assets:														
Fair value of plan assets at beginning of year		606,896		550,238		212,748		185,590		_		_		
Actual return on plan assets		13,385		92,961		10,664		13,560		_		_		
Company contributions		_		_		8,121		7,315		6,262		12,324		
Plan participants' contributions		_		_		2,009		1,707		_		_		
Benefits paid		(18,221)		(36,303)		(7,519)		(8,613)		(5,331)		(12,324)		
Settlements and curtailments		(28,960)		_		(2,287)		(294)		(931)		_		
Currency translation and other		_		_		(4,059)		13,483		_		_		
Fair value of plan assets at end of year		573,100		606,896		219,677		212,748				_		
Funded (Unfunded) status	\$	94,754	\$	82,715	\$	(95,038)	\$	(128,081)	\$	(42,905)	\$	(51,194)		
Amounts recognized in the consolidated balance sheets consist of:														
Assets and Liabilities:														
Other assets and deferred charges	\$	94,754	\$	82,715	\$,	\$	653	\$	_	\$	_		
Accrued compensation and employee benefits		_		_		(1,729)		(1,691)		(4,776)		(4,899)		
Other liabilities (deferred compensation)						(94,884)		(127,043)		(38,129)		(46,295)		
Total assets (liabilities)		94,754		82,715		(95,038)		(128,081)		(42,905)		(51,194)		
Accumulated Other Comprehensive Loss (Earnings):														
Net actuarial losses (gains)		33,545		49,386		50,878		80,472		(20,724)		(18,400)		
Prior service cost (credit)		110		322		(1,303)		(3,632)		2,980		4,593		
Tax (benefit) expense		(6,686)		(10,272)		(11,836)		(17,144)		3,840		2,961		
Total accumulated other comprehensive loss (earnings), net o tax	f	26,969		39,436		37,739		59,696		(13,904)		(10,846)		
Net amount recognized at December 31,	\$	121,723	\$	122,151	\$	(57,299)	\$	(68,385)	\$	(56,809)	\$	(62,040)		
Accumulated benefit obligations	\$	471,871	\$	511,292	\$	302,929	\$	326,317	\$	41,110	\$	47,358		

⁽¹⁾ The actuarial gains and losses were primarily due to discount rate fluctuations.

The Company's net unfunded status at December 31, 2021 and 2020 includes net liabilities of \$95,038 and \$128,081, respectively, relating to the Company's significant international qualified plans, some in locations where it is not economically advantageous to pre-fund the plans due to local regulations. The majority of the international obligations relate to defined pension plans operated by the Company's businesses in Germany, France, the United Kingdom, Italy, and Switzerland.

(Amounts in thousands except share data and where otherwise indicated)

The accumulated benefit obligation for all defined benefit pension plans was \$815,910 and \$884,967 at December 31, 2021 and 2020, respectively. Pension plans with projected benefit obligations and accumulated benefit obligations in excess of plan assets consist of the following at December 31, 2021 and 2020:

	2021	2020
Projected benefit obligation (PBO)	\$ 244,837	\$ 383,244
Accumulated benefit obligation (ABO)	234,820	364,895
Fair value of plan assets	106,519	203,314

Net Periodic Benefit Cost

The operating expense component of net periodic benefit cost (service cost) is reported with similar compensation costs in the Company's Consolidated Statement of Earnings. The non-operating components (all other components of net periodic benefit expense, including interest cost, amortization of prior service cost, curtailments and settlements, etc.) are reported outside of operating income in other income, net in the Consolidated Statement of Earnings.

Components of the net periodic benefit cost were as follows:

Defined Benefit Plans

				Qu	alified Def	ined 1	Benefits						Non-O	ualif	ied Supp	lem	ental	
	 U.S. Plan					ľ	Von	-U.S. Plaı	าร		Benefits							
	 2021		2020		2019		2021		2020		2019		2021		2020		2019	
Service cost	\$ 7,134	\$	6,824	\$	7,016	\$	5,749	\$	5,345	\$	5,665	\$	1,561	\$	1,272	\$	1,942	
Interest cost	13,605		16,272		19,026		3,590		3,697		5,101		1,232		1,765		2,670	
Expected return on plan assets	(28,980)		(31,475)		(34,136)		(7,188)		(6,837)		(6,220)		_		_		_	
Amortization of:																		
Prior service cost (credit)	212		227		303		(453)		(493)		(398)		1,531		1,695		2,811	
Recognized actuarial loss (gain)	10,012		7,536		_		3,938		3,047		3,109		(1,672)		(1,857)		(2,280)	
Settlement and curtailment loss (gain)	2,031		_		_		194		25		961		(743)		_		_	
Net periodic expense (benefit)	\$ 4,014	\$	(616)	\$	(7,791)	\$	5,830	\$	4,784	\$	8,218	\$	1,909	\$	2,875	\$	5,143	

Assumptions

The Company determines actuarial assumptions on an annual basis. The weighted average assumptions used in determining the benefit obligations were as follows:

	<u> </u>	Qualified Defin	ed Benefits		N 0 1161 1.0			
	U.S. Pl	lan	Non-U.S.	Plans	Non-Qualified Supplemental Benefits			
	2021	2020	2021	2020	2021	2020		
Discount rate	2.95 %	2.65 %	1.18 %	0.79 %	2.90 %	2.45 %		
Average wage increase	4.00 %	4.00 %	1.53 %	1.51 %	4.50 %	4.50 %		

(Amounts in thousands except share data and where otherwise indicated)

The weighted average assumptions used in determining the net periodic benefit cost were as follows:

			Qualified Def	ined Benefits					
		U.S. Plan		No	on-U.S. Plans		Non- Qualifie	d Supplement	al Benefits
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Discount rate	2.65 %	3.40 %	4.35 %	0.79 %	1.18 %	1.83 %	2.45 %	3.20 %	4.30 %
Average wage increase	4.00 %	4.00 %	4.00 %	1.51 %	1.80 %	2.10 %	4.50 %	4.50 %	4.50 %
Expected return on plan assets	5.60 %	6.30 %	6.80 %	3.40 %	3.69 %	3.67 %	na	na	na

The Company's discount rate assumption is determined by developing a yield curve based on high quality corporate bonds with maturities matching the plans' expected benefit payment streams. The plans' expected cash flows are then discounted by the resulting year-by-year spot rates.

Plan Assets

The primary financial objective of the plans is to secure participant retirement benefits. Accordingly, the key objective in the plans' financial management is to promote stability and, to the extent appropriate, growth in the funded status. Related and supporting financial objectives are established in conjunction with a review of current and projected plan financial requirements.

As it relates to the funded defined benefit pension plans, the Company's funding policy is consistent with the funding requirements of the Employment Retirement Income Security Act ("ERISA") and applicable international laws. The Company is responsible for overseeing the management of the investments of the plans' assets and otherwise ensuring that the plans' investment programs are in compliance with ERISA, other relevant legislation and related plan documents. Where relevant, the Company has retained professional investment managers to manage the plans' assets and implement the investment process. The investment managers, in implementing their investment processes, have the authority and responsibility to select appropriate investments in the asset classes specified by the terms of their applicable prospectus or investment manager agreements with the plans.

The assets of the plans are invested to achieve an appropriate return for the plans consistent with a prudent level of risk. The plans' long-term investment objective is to generate investment returns that provide adequate assets to meet all benefit obligations in accordance with applicable regulations. The expected return on assets assumption used for net periodic benefit cost is developed through analysis of historical and forecasted market returns, statistical analysis, current market conditions and the past experience of plan asset investments.

The Company's actual and target weighted average asset allocation for our U.S. Qualified Defined Benefits Plan was as follows:

	2021	2020	Current Target
Return-seeking investments	29 %	22 %	30 %
Liability hedging investments	69 %	77 %	70 %
Other	2 %	1 %	— %
Total	100 %	100 %	100 %

Return-seeking investments include diversified foreign and domestic equities, U.S. high yield fixed income investments, and emerging market debt. Liability hedging investments primarily include a diversified portfolio of U.S. long duration fixed income assets. While the non-U.S. investment policies are different for each country, the long-term objectives are generally the same as for the U.S. pension assets.

(Amounts in thousands except share data and where otherwise indicated)

The fair values of both U.S. and non-U.S. pension plan assets by asset category within the fair value hierarchy (as defined in Note 13 — Financial Instruments) were as follows:

		U.	S. Q	Qualified Defi	inec	l Benefits Pla	ın			
		12/31/2021								
	 Level 1	Level 2	-	Total Fair Value		Level 1		Level 2	7	Total Fair Value
Corporate bonds	\$ 	\$ 316,367	\$	316,367	\$	_	\$	329,800	\$	329,800
Government securities	_	73,115		73,115		8,533		72,018		80,551
Interest-bearing cash and short-term investments	3,227	_		3,227		3,117		_		3,117
Total investments at fair value	 3,227	389,482		392,709		11,650		401,818		413,468
Investments measured at net asset value*										
Collective funds	_	_		167,551		_		_		180,103
Short-term investment funds	_	_		12,840		_		_		13,325
Total investments	\$ 3,227	\$ 389,482	\$	573,100	\$	11,650	\$	401,818	\$	606,896

		Non-U.S. Plans									5. Plans									
				12/3	1/20	21						12/3	1/202	20						
]	Level 1]	Level 2]	Level 3	7	otal Fair Value		Level 1]	Level 2	I	Level 3	7	Total Fair Value				
Common stocks	\$	58,054	\$	_	\$	_	\$	58,054	\$	52,865	\$	_	\$	_	\$	52,865				
Fixed income investments		_		27,034		_		27,034		_		26,068		_		26,068				
Mutual funds		30,675		_		_		30,675		29,413		_		_		29,413				
Cash and cash equivalents		3,634		_		_		3,634		2,822		_		_		2,822				
Other		_		2,877		20,252		23,129		_		1,181		21,276		22,457				
Total investments at fair value		92,363		29,911		20,252		142,526		85,100		27,249		21,276		133,625				
Investments measured at net asset value*																				
Collective funds		_		_		_		72,235		_		_		_		74,138				
Other		_		_		_		4,916		_		_		_		4,985				
Total investments	\$	92,363	\$	29,911	\$	20,252	\$	219,677	\$	85,100	\$	27,249	\$	21,276	\$	212,748				

^{*} In accordance with Fair Value Measurement Topic 820 (Subtopic 820-10), certain investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient were not classified in the fair value hierarchy. These are included to permit reconciliation of the fair value hierarchy to the aggregate pension plan assets.

Common stocks represent investments in domestic and foreign equities, which are publicly traded on active exchanges and are valued based on quoted market prices.

Fixed income investments include bonds and notes, which are valued based on quoted market prices, as well as investments in other government and municipal securities and corporate bonds, which are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

Mutual funds are categorized as either Level 1, 2 or Net Asset Value ("NAV") as a practical expedient depending on the nature of the observable inputs. Collective funds and short-term investment funds are valued using NAV as a practical expedient as of the last business day of the year. The NAV is based on the underlying value of the assets owned by the fund, minus its liabilities, and then divided by the number of shares outstanding.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The availability of observable data is monitored by plan management to assess appropriate classification of financial instruments within the fair value hierarchy. Depending upon the availability of such inputs, specific securities may transfer between levels. In such instances, the transfer is reported at the end of the reporting period.

(Amounts in thousands except share data and where otherwise indicated)

The fair value measurement of plan assets using significant unobservable inputs (Level 3) changed during 2020 and 2021, due to the following:

	Level 3
Balance at December 31, 2019	\$ 18,597
Actual return on plan assets:	
Relating to assets still held at December 31, 2020	349
Relating to assets sold during the period	6
Purchases	1,715
Sales and settlements	(1,111)
Foreign currency translation	1,720
Balance at December 31, 2020	21,276
Actual return on plan assets:	
Relating to assets still held at December 31, 2021	48
Relating to assets sold during the period	_
Purchases	1,664
Sales and settlements	(2,158)
Foreign currency translation	(578)
Balance at December 31, 2021	\$ 20,252

Future Estimates

Benefit Payments

Estimated future benefit payments to retirees, which reflect expected future service except to the extent frozen, are as follows:

	Qualified	l Define	ed Benefits	
	U.S. Plan		Non-U.S. Plans	Non-Qualified Supplemental Benefits
2022	\$ 36,4	\$ \$	11,003	\$ 4,845
2023	33,8	345	11,554	4,039
2024	34,4	145	12,872	5,699
2025	32,6	570	11,534	2,297
2026	31,7	27	12,674	5,856
2027 - 2031	134,1	.59	72,555	15,140

Contributions

In 2022, the Company expects to make payments of approximately \$7.7 million to its non-US plans and \$4.8 million to its non-qualified U.S. plan. No payments are expected for the qualified U.S. plan in 2022.

(Amounts in thousands except share data and where otherwise indicated)

18. Accumulated Other Comprehensive Earnings (Loss)

The components of accumulated other comprehensive earnings (loss) are as follows:

	December 31, 202	1	December 31, 2020
Cumulative foreign currency translation adjustments	\$ (107,2	130) 5	\$ (66,802)
Pension and other postretirement benefit plans	(50,4	148)	(88,126)
Changes in fair value of cash flow hedges and other	3,	526	1,674
	\$ (154,0)52) 5	\$ (153,254)

Amounts reclassified from accumulated other comprehensive earnings (loss) to earnings (loss) during the year ended December 31, 2021, 2020 and 2019 were as follows:

	Years Ended December 31,										
		2021		2019							
Foreign currency translation:											
Reclassification of foreign currency translation losses to earnings	\$	_	\$		\$	25,339					
Tax benefit		<u> </u>				_					
Net of tax	\$		\$		\$	25,339					
Pension and other postretirement benefit plans:		,									
Amortization of actuarial losses	\$	12,278	\$	8,583	\$	759					
Amortization of prior service costs and transition obligation		1,304		1,442		2,729					
Settlement and curtailment		1,482		25		961					
Total before tax		15,064		10,050		4,449					
Tax benefit		(3,423)		(2,184)		(906)					
Net of tax	\$	11,641	\$	7,866	\$	3,543					
Cash flow hedges:											
Net gains reclassified into earnings	\$	(6,271)	\$	(817)	\$	(186)					
Tax expense		1,400		185		39					
Net of tax	\$	(4,871)	\$	(632)	\$	(147)					

The Company recognizes the amortization of net actuarial losses, prior service costs and transition obligation as well as settlements and curtailments, in other income, net in the Consolidated Statements of Earnings.

Cash flow hedges consist mainly of foreign currency forward contracts. The Company recognizes the realized gains and losses on its cash flow hedges in the same line item as the hedged transaction, such as revenue, cost of goods and services, or selling, general and administrative expenses in the Consolidated Statements of Earnings.

(Amounts in thousands except share data and where otherwise indicated)

19. Segment Information

The Company categorizes its operating companies into five reportable segments: Engineered Products, Clean Energy & Fueling, Imaging & Identification, Pumps & Process Solutions, and Climate & Sustainability Technologies. The Company's businesses are structured around similar business models, go-to market strategies, manufacturing practices and product categories which increases management efficiency and better aligns Dover's operations with its strategic initiatives and capital allocation priorities, and provides greater transparency about performance. Operating segments are defined as the components of an enterprise for which separate financial information is available, engages in business activities from which it may recognize revenues and incur expenses, and regularly evaluated by the entity's chief operating decision maker or decision-making group, which is composed of Dover's executive leadership team, in making resource allocation decisions and evaluating performance.

The five reportable segments are as follows:

- Engineered Products segment provides a wide range of equipment, components, software, solutions and services vehicle aftermarket, waste handling, industrial automation, aerospace and defense, industrial winch and hoist, and fluid dispensing end-markets.
- Clean Energy & Fueling segment provides components, equipment, and software and service solutions enabling safe transport of traditional and
 clean fuels and other hazardous substances along the supply chain, as well as the safe and efficient operation of convenience retail, retail fueling
 and vehicle wash establishments.
- Imaging & Identification segment supplies precision marking and coding, product traceability and digital textile printing equipment, as well as
 related consumables, software and services to the global packaged and consumer goods, pharmaceutical, industrial manufacturing, fashion and
 apparel and other end-markets.
- Pumps & Process Solutions segment manufactures specialty pumps and flow meters, fluid connecting solutions, plastics and polymer processing
 equipment, and highly engineered precision components for rotating and reciprocating machines serving single-use biopharmaceutical production,
 diversified industrial manufacturing, polymer processing, midstream and downstream oil and gas and other end-markets.
- Climate & Sustainability Technologies segment is a provider of innovative and energy-efficient equipment and systems that serve the commercial refrigeration, heating and cooling and beverage container-making equipment markets.

(Amounts in thousands except share data and where otherwise indicated)

Segment financial information and a reconciliation of segment results to consolidated results follows:

		Years Ended December 31,								
		2021		2020		2019				
Revenue:										
Engineered Products	\$	1,780,827	\$	1,531,277	\$	1,697,557				
Clean Energy & Fueling		1,648,153		1,476,282		1,620,177				
Imaging & Identification		1,163,367		1,038,178		1,084,471				
Pumps & Process Solutions		1,708,634		1,324,003		1,338,528				
Climate & Sustainability Technologies		1,608,175		1,316,090		1,396,617				
Intercompany eliminations		(2,075)		(2,070)		(953)				
Total consolidated revenue	\$	7,907,081	\$	6,683,760	\$	7,136,397				
Net earnings:										
Segment earnings (EBIT): (1)										
Engineered Products (2)	\$	285,511	\$	238,167	\$	291,848				
Clean Energy & Fueling		271,388		236,974		231,873				
Imaging & Identification		237,147		193,473		229,484				
Pumps & Process Solutions (3)		546,863		305,276		240,081				
Climate & Sustainability Technologies (4)		322,622		102,872		118,832				
Total segment earnings (EBIT)		1,663,531		1,076,762		1,112,118				
Corporate expense / other ⁽⁵⁾		160,827	_	126,662		124,274				
Interest expense		106,319		111,937		125,818				
Interest income		(4,441)		(3,571)		(4,526)				
Loss on extinguishment of debt		(.,2)		(5,5,71)		23,543				
Earnings before provision for income taxes		1,400,826		841,734		843,009				
Provision for income taxes		277,008		158,283		165,091				
	\$	1,123,818	\$	683,451	\$	677,918				
Net earnings	<u> </u>	1,125,010	Ψ	005,451	Ψ	077,510				
<u>Segment margins:</u> Engineered Products ⁽²⁾		16.0%		15.6%		17.2%				
Clean Energy & Fueling		16.5%		16.1%		14.3%				
Imaging & Identification		20.4%		18.6%		21.2%				
Pumps & Process Solutions (3)		32.0%		23.1%		17.9%				
Climate & Sustainability Technologies (4)										
•		20.1% 21.0%		7.8% 16.1%		8.5%				
Total Segments						15.6%				
Net earnings		14.2%		10.2%		9.5%				
<u>Depreciation and amortization:</u> Engineered Products	\$	10 611	\$	42.602	¢	41 022				
Clean Energy & Fueling	Ф	48,644	Э	42,603	Ф	41,032				
<u> </u>		78,010		72,803 38,378		75,045				
Imaging & Identification		38,510				30,530				
Pumps & Process Solutions Climate & Systeinshiller Technologies		69,075 48,634		72,191		67,584				
Climate & Sustainability Technologies				46,541 6,535		51,360				
Corporate	<u></u>	7,250	ф.		<u>ф</u>	6,736				
Consolidated total	\$	290,123	\$	279,051	\$	272,287				
Capital expenditures:										
Engineered Products	\$	48,453	\$	23,515	\$	38,049				
Clean Energy & Fueling		25,167		26,903		21,780				
Imaging & Identification		10,671		10,690		18,593				
Pumps & Process Solutions		44,578		52,804		50,442				
Climate & Sustainability Technologies		34,335		42,923		51,052				
Corporate		8,261		8,857		6,888				
Consolidated total	\$	171,465	\$	165,692	\$	186,804				

⁽¹⁾ Segment earnings (EBIT) includes non-operating income and expense directly attributable to the segments. Non-operating income and expense includes gain on dispositions and other income, net.
(2) For the year ended December 31, 2021, includes a \$24,723 gain related to the sale of RWB equity method investment.
(3) For the year ended December 31, 2019, includes a \$46,946 loss on assets held for sale for Finder.

(Amounts in thousands except share data and where otherwise indicated)

(4) For the year ended December 31, 2021, includes a pre-tax \$181,615 gain on the disposition of UB, a \$12,073 other than temporary impairment charge related to an equity method investment, and a \$6,072 write-off of assets related to an exit from certain Latin America countries. For the year ended December 31, 2020, includes a \$5,213 pre-tax gain on the sale of AMS Chino and a \$3,640 write-off of assets.

(5) Certain expenses are maintained at the corporate level and not allocated to the segments. These expenses include executive and functional compensation costs, non-service pension costs, non-operating insurance expenses, shared business services overhead costs, deal related expenses and various administrative expenses relating to the corporate headquarters.

Selected financial information by segment (continued):

Total assets at December 31:	2021	2020
Engineered Products	\$ 1,678,317	\$ 1,482,430
Clean Energy & Fueling ⁽⁶⁾	3,201,504	2,125,900
Imaging & Identification	1,871,039	1,919,223
Pumps & Process Solutions	1,709,852	1,591,441
Climate & Sustainability Technologies	1,358,118	1,320,950
Corporate (7)	584,797	712,130
Total assets	\$ 10,403,627	\$ 9,152,074

⁽⁶⁾ Increase primarily driven by 2021 acquisitions, See Note 3 — Acquisitions for additional information.

⁽⁷⁾ The significant portion of corporate assets are principally cash and cash equivalents.

		Revenue Years Ended December 31,				Long-Lived Assets (8) At December 31,				
		2021		2020		2019		2021		2020
United States	\$	4,305,957	\$	3,677,285	\$	3,806,033	\$	584,948	\$	518,679
Europe		1,797,138		1,482,520		1,571,901		283,952		289,657
Asia		901,141		745,150		863,050		62,210		61,235
Other Americas		612,751		535,091		625,707		20,627		21,174
Other		290,094		243,714		269,706		5,573		6,581
Consolidated total	\$	7,907,081	\$	6,683,760	\$	7,136,397	\$	957,310	\$	897,326

⁽⁸⁾ Long-lived assets are comprised of net property, plant and equipment.

The U.S. was the largest geographical market for the Engineered Products, Clean Energy & Fueling, Pumps & Process Solutions, and Climate & Sustainability Technologies segments, and Europe was the largest market for the Imaging & Identification segment.

Revenue is attributed to regions based on the location of the Company's customer, which in some instances is an intermediary and not necessarily the end user. The Company's businesses serve thousands of customers, none of which accounted for more than 10% of consolidated revenue.

(Amounts in thousands except share data and where otherwise indicated)

20. Earnings per Share

The following table sets forth a reconciliation of the information used in computing basic and diluted earnings per share:

	Years Ended December 31,					
		2021	2020			2019
Net earnings	\$	1,123,818	\$	683,451	\$	677,918
Basic earnings per common share:						
Net earnings	\$	7.81	\$	4.74	\$	4.67
Weighted average basic shares outstanding		143,923,000		144,050,000		145,198,000
Diluted earnings per common share:						
Net earnings	\$	7.74	\$	4.70	\$	4.61
Weighted average diluted shares outstanding		145,273,000		145,393,000		146,992,000

The following table is a reconciliation of the share amounts used in computing earnings per share:

	Years Ended December 31,				
	2021	2020	2019		
Weighted average shares outstanding - Basic	143,923,000	144,050,000	145,198,000		
Dilutive effect of assumed exercise of SARs and vesting of performance shares and RSUs	1,350,000	1,343,000	1,794,000		
Weighted average shares outstanding - Diluted	145,273,000	145,393,000	146,992,000		

Diluted earnings per share amounts are computed using the weighted average number of common shares outstanding and, if dilutive, potential common shares outstanding during the period. Potential common shares consist of the incremental common shares issuable upon the exercise of SARs and vesting of performance shares and RSUs, as determined using the treasury stock method. For the years ended December 31, 2021, 2020 and 2019, the weighted average number of anti-dilutive potential common shares excluded from the calculation above totaled 1,072, 30,378 and 28,096, respectively.

21. Stockholders' Equity

Share Repurchases

In November 2020, the Company's Board of Directors approved a new standing share repurchase authorization, whereby the Company may repurchase up to 20 million shares beginning on January 1, 2021 through December 31, 2023. This share repurchase authorization replaced the February 2018 share repurchase authorization.

The Company's prior February 2018 share repurchase authorization, whereby the Company was authorized to repurchase up to 20 million shares of its common stock, expired on December 31, 2020. Upon expiration, there were 7,380,879 shares remaining.

During the year ended December 31, 2021 and 2020 the Company repurchased 182,951 and 979,165 shares of common stock at a total cost of \$21,637 and \$106,279 or \$118.27 and \$108.54 per share, respectively.

As of December 31, 2021, 19,817,049 Shares remain authorized for repurchase under the November 2020 share repurchase authorization.

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS Years Ended December 31, 2021, 2020 and 2019

(In	thousands)	
	Ralanco	

Deferred Tax Valuation Allowance		Balance at Beginning of Year	Additions	Reductions]	Balance at End of Year
Year Ended December 31, 2021	\$	287,679	38,514	(20,127)	\$	306,066
Year Ended December 31, 2020	\$	244,153	49,130	(5,604)	\$	287,679
Year Ended December 31, 2019	\$	264,398	14,189	(34,434)	\$	244,153
LIFO Reserve						
LIFO Reserve		Balance at Beginning of Year	Charged to Cost and Expense	Reductions]	Balance at End of Year
LIFO Reserve Year Ended December 31, 2021		Beginning		Reductions (1,214)		
		Beginning of Year	and Expense		\$	End of Year

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Based on an evaluation under the supervision and with the participation of the Company's management, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures as defined in Rule 13a-15(e) under the Exchange Act were effective as of December 31, 2021 to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms and (ii) accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Controls

During the fourth quarter of 2021, there were no changes in the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Inherent Limitations Over Internal Controls

The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that:

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

Management's report on the effectiveness of the Company's internal control over financial reporting is included in Item 8 of this Form 10-K. Management, including the Company's Chief Executive Officer and Chief Financial Officer, does not expect that the Company's internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods is subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or procedures may deteriorate.

ITEM 9B. OTHER INFORMATION

None.

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ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information with respect to the corporate governance matters required to be included pursuant to this Item 10 will be included in the 2022 Proxy Statement that will be filed with the Securities and Exchange Commission pursuant to Rule 14a-6 under the Exchange Act in accordance with applicable SEC deadlines, and is incorporated in this Item 10 by reference.

As set forth below is a list of the members of our Board of Directors as of February 11, 2022.

Deborah L. DeHaas 1

Former Vice Chairman of Deloitte and Managing Partner of the Center for Board Effectiveness

H. John Gilbertson, Jr. 1,4

Retired Managing Director, Goldman Sachs Group Inc.

Kristiane C. Graham^{2,3}

Private Investor

Michael F. Johnston, Chairman of the Board^{2,3}

Retired Chief Executive Officer, Visteon Corporation

Eric A. Spiegel^{1,4}

Former President and CEO of Siemens USA

Richard J. Tobin

President & Chief Executive Officer, Dover Corporation

Stephen M. Todd¹

Former Global Vice Chairman of Assurance Professional Practice of Ernst & Young Global Limited

Stephen K. Wagner^{1,3}

Former Senior Advisor, Center for Corporate Governance, Deloitte & Touche LLP

Keith E. Wandell^{2,4}

Retired President and Chief Executive Officer, Harley-Davidson, Inc.

Mary A. Winston^{2,4}

President of WinsCo Enterprises Inc.;

Former Executive Vice President & Chief Financial Officer, Family Dollar Stores, Inc.

- ¹ Members of Audit Committee
- ² Members of Compensation Committee
- ³ Members of Governance & Nominating Committee
- ⁴ Members of Finance Committee

The information with respect to Section 16(a) reporting compliance required to be included in this Item 10 will be included in our 2022 Proxy Statement and is incorporated in this Item 10 by reference.

The Company has adopted a code of ethics that applies to its chief executive officer and senior financial officers. A copy of this code of ethics can be found on our website at www.dovercorporation.com. In the event of any amendment to, or waiver from, the code of ethics, we will publicly disclose the amendment or waiver by posting the information on our website.

ITEM 11. EXECUTIVE COMPENSATION

The information with respect to executive compensation and the compensation committee required to be included pursuant to this Item 11 will be included in our 2022 Proxy Statement and is incorporated in this Item 11 by reference.

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

The information regarding security ownership of certain beneficial owners and management that is required to be included pursuant to this Item 12 will be included in our 2022 Proxy Statement and is incorporated in this Item 12 by reference.

Equity Compensation Plans

The Equity Compensation Plan Table below presents information regarding our equity compensation plans at December 31, 2021:

(a)	(b)	(c)
Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (2)
2,676,195	\$ 89.49	13,175,027
_	_	_
2,676,195	\$ 89.49	13,175,027
	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1) 2,676,195	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights 2,676,195 \$ 89.49

- 1. Column (a) includes shares issuable pursuant to outstanding SARs, restricted stock units and performance share awards under the Company's 2021 Omnibus Incentive Plan (the "2021 Plan"), 2012 Equity and Cash Incentive Plan (the "2012 Plan"), and the 2005 Equity and Cash Incentive Plan (the "2005 Plan"). Performance shares are subject to satisfaction of the applicable performance criteria over a three-year performance period. Restricted stock unit and performance share awards are not reflected in the weighted exercise price in column (b) as these awards do not have an exercise price.
- 2. Column (c) consists of shares available for future issuance under the Company's the 2021 Plan. Under the 2021 Plan, the Company may grant stock options, SARs, restricted stock or restricted stock units, performance share awards, director shares, or deferred stock units. Under the 2021 Plan, the number of shares available for issuance will be reduced (i) by one share for each share issued pursuant to options or SARs and (ii) by three shares for each share of stock issued pursuant to restricted stock, restricted stock unit, performance share, director share, or deferred stock unit awards.

As of December 31, 2021, equity securities have been authorized for issuance to employees and/or non-employee directors under the 2021 Plan and its predecessor plans (the "2012 Plan" and "2005 Plan"). Although the 2012 and 2005 Plans have expired and no further awards may be granted under the Plans, there remain outstanding stock-settled appreciation rights, restricted stock units, and performance share awards under the 2012 and 2005 Plans, which are reflected in Column (a) of the table.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information with respect to any director independence, related party transaction policies and any reportable transaction, business relationship, or indebtedness between the Company and the beneficial owners of more than 5% of the Common Stock, the directors or nominees for director of the Company, the executive officers of the Company, or the members of the immediate families of such individuals that are required to be included pursuant to this Item 13 will be included in the 2022 Proxy Statement and is incorporated in this Item 13 by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information with respect to the Company's relationship with its independent registered public accounting firm and fees paid thereto required to be included pursuant to this Item 14 will be included in the 2022 Proxy Statement and is incorporated in this Item 14 by reference.

The information with respect to audit committee pre-approval policies and procedures required to be included pursuant to this Item 14 will be included in the 2022 Proxy Statement and is incorporated in this Item 14 by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- a) The following documents are filed as part of this report:
- (1) Financial Statements. The financial statements are set forth under "Item 8. Financial Statements and Supplementary Data" of this Form 10-K.
- (2) Schedules. The following financial statement schedule is set forth under "Item 8. Financial Statements and Supplementary Data" of this Form 10-K. All other schedules have been omitted because they are not required, are not applicable or the required information is included in the financial statements or the notes thereto.
 - Schedule II Valuation and Qualifying Accounts
- (3) Exhibits. The exhibits below are filed or incorporated by reference as part of this Form 10-K. The exhibits will be filed with the SEC but will not be included in the printed version of the Annual Report to Shareholders.

EXHIBIT INDEX

- (2.1) <u>Separation and Distribution Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation, filed as Exhibit 2.1 to the Company's Current Report on Form 8-K filed May 11, 2018 (SEC File No. 001-04018), is incorporated by reference.</u>
- (3)(i) Fifth Restated Certificate of Incorporation of the Company, filed as Exhibit 3(i)(a) to the Company's Current Report on Form 8-K filed May 7, 2019 (SEC File No. 001-04018), is incorporated by reference.
- (3)(ii) <u>Amended and Restated By-Laws of the Company, effective as of February 14, 2020, filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 19, 2020 (SEC File No. 001-04018), are incorporated by reference.</u>
- (4.1) <u>Indenture, dated as of June 8, 1998 between the Company and The First National Bank Chicago, as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed June 12, 1998 (SEC File No. 001-04018), is incorporated by reference.</u>
- (4.2) Form of 6.65% Debentures due June 1, 2028 (\$200,000,000 aggregate principal amount), filed as Exhibit 4.4 to the Company's Current Report on Form 8-K filed June 12, 1998 (SEC File No. 001-04018), is incorporated by reference.
- (4.3) <u>Indenture</u>, dated as of February 8, 2001 between the Company and BankOne Trust Company, N.A., as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed February 13, 2001 (SEC File No. 001-04018), is incorporated by reference.
- (4.4) First Supplemental Indenture, dated as of October 13, 2005, among the Company, J.P. Morgan Trust Company, National Association, as original trustee, and The Bank of New York, as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed October 13, 2005 (SEC File No. 001-04018), is incorporated by reference.
- (4.5) Form of 5.375% Debentures due October 15, 2035 (\$300,000,000 aggregate principal amount), filed as Exhibit 4.3 to the Company's Current Report on Form 8-K filed October 13, 2005 (SEC File No. 001-04018), is incorporated by reference.
- (4.6) <u>Second Supplemental Indenture, dated as of March 14, 2008, between the Company and The Bank of New York, as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed March 14, 2008 (SEC File No. 001-04018), is incorporated by reference.</u>
- (4.7) Form of Global Note representing 6.60% Notes due March 15, 2038 (\$250,000,000 aggregate principal amount), filed as Exhibit 4.3 to the Company's Current Report on Form 8-K filed March 14, 2008 (SEC File No. 001-04018), is incorporated by reference.
- (4.8) Third Supplemental Indenture, dated as of February 22, 2011, between the Company and The Bank of New York Mellon, as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed February 22, 2011 (SEC File No. 001-04018), is incorporated by reference.
- (4.9) Form of 5.375% Notes due March 1, 2041 (\$350,000,000 aggregate principal amount), filed as Exhibit 4.3 to the Company's Current Report on Form 8-K filed February 22, 2011 (SEC File No. 001-04018), is incorporated by reference.
- (4.10) Fourth Supplemental Indenture, dated as of December 2, 2013, between the Company and The Bank of New York Mellon, as trustee and The Bank of New York Mellon, London Branch, as paying agent, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed December 3, 2013 (SEC File No. 001-04018), is incorporated by reference.

- (4.11) Fifth Supplemental Indenture, dated as of November 3, 2015, between the Company and J.P. Morgan Trust Company National Association, as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 3, 2015 (SEC File No. 001-04018), is incorporated by reference.
- (4.12) Form of Global Note representing the 3.150% Notes due 2025 (\$400,000,000 aggregate principal amount) (included as Exhibit A to the Fifth Supplemental Indenture), filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 3, 2015 (SEC File No. 001-04018), is incorporated by reference.
- (4.13) Sixth Supplemental Indenture, dated as of November 9, 2016, between the Company and J.P. Morgan Trust Company National Association, as trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 9, 2016 (SEC File No. 001-04018), is incorporated by reference.
- (4.14) Form of Global Note representing the 1.250% Notes due 2026 (€600,000,000 aggregate principal amount) (included as Exhibit A to the Sixth Supplemental Indenture), filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 9, 2016 (SEC File No. 001-04018), is incorporated by reference.
- (4.15) Seventh Supplemental Indenture, dated as of November 4, 2019, between the Company and the Bank of New York Mellon, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 4, 2019 (SEC File No. 001-04018), is incorporated by reference.
- (4.16) Form of Global Note representing the 0.750% Notes due 2027 (€500,000,000 aggregate principal amount) (included as Exhibit A to the Seventh Supplemental Indenture), filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed on November 4, 2019 (SEC File No. 001-04018), is incorporated by reference.
- (4.17) <u>Eighth Supplemental Indenture</u>, dated as of November 4, 2019, between the Company and the Bank of New York Mellon, as trustee, filed as Exhibit 4.3 to the Company's Current Report on Form 8-K filed on November 4, 2019 (SEC File No. 001-04018), is incorporated by reference.
- (4.18) Form of Global Note representing the 2.950% Notes due 2029 (\$300,000,000 aggregate principal amount) (included as Exhibit A to the Eighth Supplemental Indenture), filed as Exhibit 4.4 to the Company's Current Report on Form 8-K filed on November 4, 2019 (SEC File No. 001-04018), is incorporated by reference.
- (4.19) Description of Dover Corporation's securities registered pursuant to Section 12 of the Exchange Act, filed as Exhibit 4.19 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (SEC File No. 001-04018), is incorporated by reference.

 The Company agrees to furnish to the Securities and Exchange Commission upon request, a copy of any instrument with respect to long-term debt under which the total amount of securities authorized does not exceed 10 percent of the total consolidated assets of the Company.
- (10.1) <u>Five-Year Credit Agreement, dated as of October 4, 2019, among the Company, the Borrowing Subsidiaries party thereto from time to time, the Lenders party thereto, and JPMorgan Chase Bank, N.A, as Administrative Agent, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed October 10, 2019 (SEC File No. 001-04018), is incorporated by reference.</u>
- (10.2) Employee Matters Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed May 11, 2018 (SEC File No. 001-04018), is incorporated by reference.
- (10.3) Tax Matters Agreement, dated May 9, 2018, by and between Dover Corporation and Apergy Corporation, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed May 11, 2018 (SEC File No. 001-04018), is incorporated by reference.
- (10.4) Dover Corporation Executive Officer Annual Incentive Plan, as amended and restated as of January 1, 2009, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed May 13, 2009 (SEC File No. 001-04018), is incorporated by reference.*
- (10.5) First Amendment to the Dover Corporation Executive Officer Annual Incentive Plan, as amended November 14, 2019, filed as Exhibit 10.3 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (SEC File No. 001-04018), is incorporated by reference.*
- (10.6) Dover Corporation Deferred Compensation Plan, as amended and restated as of September 21, 2020, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2020 (SEC File No. 001-04018), is incorporated by reference.*
- (10.7) <u>Dover Corporation Pension Replacement Plan (formerly the Supplemental Executive Retirement Plan)</u>, as amended and restated as of <u>January 1, 2010, filed as Exhibit 10.11 to the Company's Annual Report on Form 10-K for the year ended December 31, 2009 (SEC File No. 001-04018), is incorporated by reference.*</u>
- (10.8) First Amendment to the Dover Corporation Pension Replacement Plan, as amended and restated as of January 1, 2010, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2013 (SEC File No. 001-04018), is incorporated by reference.*

- (10.9) Second Amendment, dated as of November 28, 2016, to the Dover Corporation Pension Replacement Plan, as amended and restated as of January 1, 2010, filed as Exhibit 10.19 to the Company's Annual Report on Form 10-K for the period ended December 31, 2016 (SEC File No. 001-04018), is incorporated by reference.*
- (10.10) Third Amendment, dated as of May 8, 2018, to the Dover Corporation Pension Replacement Plan, as amended and restated as of January 1, 2010, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2018 (SEC File No. 001-04018), is incorporated by reference.*
- (10.11) <u>Dover Corporation Executive Severance Plan (as amended and restated effective August 5, 2021), filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed August 11, 2021 (SEC File No. 001-04018) is incorporated by reference.*</u>
- (10.12) Dover Corporation Senior Executive Change-in-Control Severance Plan (as amended and restated effective August 5, 2021), filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed August 11, 2021 (SEC File No. 001-04018) is incorporated by reference.*
- (10.13) Dover Corporation 2005 Equity and Cash Incentive Plan, amended and restated as of January 1, 2009, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed May 13, 2009 (SEC File No. 001-04018), is incorporated by reference.*
- (10.14) Amendment No. 1 to the Dover Corporation 2005 Equity and Cash Incentive Plan (Amended and Restated as of January 1, 2009), filed as Exhibit 10.9 to the Company's Annual Report on Form 10-K for the period ended December 31, 2014 (SEC File No. 001-04018), is incorporated by reference.*
- (10.15) Amendment No. 1 to the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.25 to the Company's Annual Report on Form 10-K for the year ended December 31, 2013 (SEC File No. 001-04018), is incorporated by reference.*
- (10.16) Form of award grant letter for SSAR grants made under the Dover Corporation 2005 Equity and Cash Incentive Plan, filed as Exhibit 10.8 to the Company's Annual Report on Form 10-K for the period ended December 31, 2011 (SEC File No. 001-04018), is incorporated by reference.*
- (10.17) Dover Corporation 2012 Equity and Cash Incentive Plan, effective as of May 3, 2012, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2012 (SEC File No. 001-04018), is incorporated by reference.*
- (10.18) Amendment No. 2, adopted and effective as of August 6, 2014, to the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2014 (SEC File No. 001-04018), is incorporated by reference.*
- (10.19) Amendment Number 3, adopted and effective as of February 12, 2021, to the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2021 (SEC File No. 001-04018), is incorporated by reference.*
- (10.20) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.20 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012 (SEC File No. 001-04018), is incorporated by reference.*
- (10.21) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2014 (SEC File No. 001-04018), is incorporated by reference.*
- (10.22) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.25 to the Company's Annual Report on Form 10-K for the period ended December 31, 2014 (SEC File No. 001-04018), is incorporated by reference.*
- (10.23) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016 (SEC File No. 001-04018), is incorporated by reference.*
- (10.24) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2017 (SEC File No. 001-04018), is incorporated by reference.*
- (10.25) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2018 (SEC File No. 001-04018), is incorporated by reference.*
- (10.26) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2019 (SEC File No. 001-04019), is incorporated by reference.*

- (10.27) Form of award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (SEC File No. 001-04019), is incorporated by reference.*
- (10.28) Form of 2021 award grant letter for SSAR grants made under the Dover Corporation 2012 Equity and Cash Incentive Plan filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2021 (SEC File No. 001-04018), is incorporated by reference.*
- (10.29) Form of award grant letter for cash performance awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2019 (SEC File No. 001-04018), is incorporated by reference.*
- (10.30) Form of award grant letter for cash performance awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (SEC File No. 001-04018), is incorporated by reference.*
- (10.31) Form of award grant letter for cash performance awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (SEC File No. 001-04018), is incorporated by reference.*
- (10.32) Form of award grant letter for performance share awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2019 (SEC File No. 001-04018), is incorporated by reference.*
- (10.33) Form of award grant letter for performance share awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (SEC File No. 001-04018), is incorporated by reference.*
- (10.34) Form of 2021 award grant letter for performance share awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2021 (SEC File No. 001-04018), is incorporated by reference.*
- (10.35) Form of Restricted Stock Unit Award Letter under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2018 (SEC File No. 001-04018), is incorporated by reference.*
- (10.36) Form of Restricted Stock Unit Award Letter under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2019 (SEC File No. 001-04018), is incorporated by reference.*
- (10.37) Form of Restricted Stock Unit Award Letter under the Dover Corporation 2012 Equity and Cash Incentive Plan, filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (SEC File No. 001-04018), is incorporated by reference.*
- (10.38) Form of 2021 award grant letter for RSU awards made under the Dover Corporation 2012 Equity and Cash Incentive Plan filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2021 (SEC File No. 001-04018), is incorporated by reference.*
- (10.39) <u>Dover Corporation 2021 Omnibus Incentive Plan, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed May 10, 2021 (SEC File No. 001-04018), is incorporated by reference.*</u>
- (10.40) Form of 2021 award grant letter for SSAR grants made under the Dover Corporation 2021 Omnibus Incentive Plan*(1).
- (10.41) Form of 2021 award grant letter for RSU awards made under the Dover Corporation 2021 Omnibus Incentive Plan*(1)
- (10.42) Form of 2021 award grant letter for cash performance awards made under the Dover Corporation 2021 Omnibus Incentive Plan*(1)
- (10.43) Form of 2022 award grant letter for SSAR grants made under the Dover Corporation 2021 Omnibus Incentive Plan*(1)
- (10.44) Form of 2022 award grant letter for RSU awards made under the Dover Corporation 2021 Omnibus Incentive Plan*(1)
- (10.45) Form of 2022 award grant letter for cash performance awards made under the Dover Corporation 2021 Omnibus Incentive Plan*(1)
- (10.46) Form of 2022 award grant letter for performance share awards made under the Dover Corporation 2021 Omnibus Incentive Plan *(1)
- (10.47) Employment Agreement of Richard J. Tobin dated March 16, 2018, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed March 20, 2018 (SEC File No. 001-04018), is incorporated by reference.*

- (10.48) Amendment to Employment Agreement of Richard J. Tobin, dated as of February 19, 2021, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed February 19, 2021 (SEC File No. 001-04018), is incorporated by reference.*
 - (21) Subsidiaries of Dover. (1)
 - (23) Consent of Independent Registered Public Accounting Firm. (1)
 - (24) Power of Attorney (included in signature page). (1)
- (31.1) Certification pursuant to Rule 13a-14 of the Securities and Exchange Act of 1934, as amended, signed and dated by Brad M. Cerepak. (1)
- (31.2) Certification pursuant to Rule 13a-14 of the Securities and Exchange Act of 1934, as amended, signed and dated by Richard J. Tobin. (1)
 - (32) Certification pursuant to 18 U.S.C. Section 1350, signed and dated by Richard J. Tobin and Brad M. Cerepak. (1)
- (101) The following materials from Dover Corporation's Annual Report on Form 10-K for the year ended December 31, 2021 formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) Consolidated Statements of Earnings, (ii) Consolidated Statements of Comprehensive Earnings (iii) Consolidated Balance Sheets, (iv) Consolidated Statements of Stockholders' Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to the Consolidated Financial Statements. (1)
- (104) Cover Page formatted in Inline XBRL and contained in Exhibit 101. (1)
 - * Executive compensation plan or arrangement.
 - (1) Filed herewith.

ITEM 16. FORM 10-K SUMMARY

None.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

DOVER CORPORATION

/s/ Richard J. Tobin

Richard J. Tobin

President and Chief Executive Officer

Date: February 11, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated. Each of the undersigned, being a director or officer of Dover Corporation (the "Company"), hereby constitutes and appoints Richard J. Tobin, Brad M. Cerepak and Ivonne M. Cabrera and each of them (with full power to each of them to act alone), his or her true and lawful attorney-in-fact and agent for him or her and in his or her name, place and stead in any and all capacities, to sign the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 under the Securities Exchange Act of 1934, as amended, and any and all amendments thereto, and to file the same with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission and any other appropriate authority, granting unto such attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing required and necessary to be done in and about the premises in order to effectuate the same as fully to all intents and purposes as he or she might or could do if personally present, hereby ratifying and confirming all that such attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Signature	Title	Date
/s/ Michael F. Johnston Michael F. Johnston	Chairman, Board of Directors	February 11, 2022
/s/ Richard J. Tobin Richard J. Tobin	Chief Executive Officer, President and Director (Principal Executive Officer)	February 11, 2022
/s/ Brad M. Cerepak Brad M. Cerepak	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 11, 2022
/s/ Ryan W. Paulson Ryan W. Paulson	Vice President, Controller (Principal Accounting Officer)	February 11, 2022
/s/ Deborah L. DeHaas Deborah L. DeHaas	Director	February 11, 2022
/s/ H. John Gilbertson, Jr. H. John Gilbertson, Jr.	Director	February 11, 2022
/s/ Kristiane C. Graham Kristiane C. Graham	Director	February 11, 2022
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Signature	Title	Date
/s/ Eric A. Spiegel Eric A. Spiegel	Director	February 11, 2022
/s/ Stephen M. Todd Stephen M. Todd	Director	February 11, 2022
/s/ Stephen K. Wagner Stephen K. Wagner	Director	February 11, 2022
/s/ Keith E. Wandell Keith E. Wandell	Director	February 11, 2022
/s/ Mary A. Winston Mary A. Winston	Director	February 11, 2022



SSAR Award

DATE: << Date>>, 2021

TO: <<Name>>

Here are the details for your SSAR grant:

Number of shares of Dover Common Stock - XXX SSAR Base Price Per Share - \$ XXX Date of Grant - << Date >> , 2021 Expiration Date - << Date >> , 2031

Your Stock Settled Appreciation Right (SSAR) Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan, as amended from time to time ("Plan"), which terms and provisions are expressly incorporated into and made a part of the Award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the Plan. A copy of the Plan and any Plan amendments can be found at www.dovercorporation.com, in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 19, 2012, Appendix A.

In addition, your SSAR Award is subject to the following:

- The earliest date on which the SSAR Award may be exercised is the third anniversary of the Grant Date. Earlier exercise may be
 permitted in the event of a Change of Control or death or disability as provided in the Plan. No payment is required to exercise a SSAR
 Award.
- 2. It is your responsibility to keep track of your SSAR Award and to ensure that you exercise your SSAR Award before it expires. Dover will not remind or notify you that your SSAR Award is nearing its expiration date.
- 3. Your SSAR Award is subject to earlier termination as provided in the Plan, for example, upon termination of employment (including retirement) prior to the expiration date.
- 4. Upon exercise of your SSAR Award, you will be entitled to receive from Dover that number of whole shares of Common Stock equal in value, on the date of exercise of the SSAR Award, to the excess of (A) the value of a share of Common Stock on the date of exercise of the SSAR Award multiplied by the number of SSARs being exercised over (B) the sum of (i) the per share base price of the SSAR Award being exercised multiplied by the number of SSARs being exercised, plus (ii) unless you elect to pay such tax in cash, any amount of tax that must be withheld in connection with such exercise; provided, however, for any Section 16 Person, (B) above will automatically include any amount of tax that must be withheld in connection with such exercise. Fractional shares shall be disregarded unless otherwise determined by the Plan Committee.
- 5. As a condition of receiving your SSAR Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging any Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under

the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging and Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging and Anti-pledging Policy and the Clawback Policy by contacting the Benefits Department at 630-541-1540.

- 6. For Non-US Employees, your SSAR Award is subject to the terms and conditions of the Addendum for Non-US Employees attached to your SSAR Award letter.
- 7. Your SSAR Award is not transferrable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 8. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.



Restricted Stock Unit Award

DATE: <<Date>>, 2021 Date of Grant: <<Date>> TO: <<Name>> XX Restricted Stock Units

Your Restricted Stock Unit Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan, as amended from time to time ("Plan"), which terms and provisions are expressly incorporated into and made a part of the award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the Plan. A copy of the Plan and any Plan amendments can be found at www.dovercorporation.com, in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 19, 2012, Appendix A.

In addition, your Restricted Stock Unit Award is subject to the following:

- A Restricted Stock Unit is a bookkeeping entry on the books of Dover. No shares of Dover common stock shall be issued to you in respect of
 the Restricted Stock Unit Award until the restrictions have lapsed at the end of a Restricted Period. Within 30 days following the end of the
 Restricted Period, Dover shall issue shares of Common Stock in your name equal to the number of Restricted Stock Units that have vested
 during the Restricted Period less applicable tax withholding. In the event that your employment shall terminate prior to your vesting in the
 Restricted Stock Units, the Restricted Stock Units shall be forfeited.
- 2. You shall vest in the Restricted Stock Unit Award, and all restrictions thereon shall lapse, with respect to 33% of your Restricted Stock Units on <<Date>>, 2022 (or the last trading day preceding such date if such date is not a trading day), with respect to 33% of your Restricted Stock Units on <<Date>>, 2023 (or the last trading day preceding such date if such date is not a trading day) and with respect to 34% of your Restricted Stock Units on <<Date>>, 2024 (or the last trading day preceding such date if such date is not a trading day), subject to the forfeiture provisions of the Plan. You must be an active employee of Dover or an affiliate at the end of each Restricted Period in order for your Restricted Stock Units to vest, with certain exceptions as provided in the Plan.
- 3. During the Restricted Period you shall not have any rights of a stockholder or the right to receive any dividends declared and other distributions paid with respect to the Restricted Stock Units. Within 30 days after the end of each Restricted Period you shall be paid all Dividend Equivalents with respect to the Restricted Stock Units that have vested.
- 4. You do not have any voting rights with respect to Restricted Stock Units.
- 5. As a condition of receiving your Restricted Stock Unit Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging <u>any</u> Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging

and Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging and Anti-pledging Policy, and the Clawback Policy, by contacting the Benefits Department at 630-541-1540.

- 6. For Non-US Employees, your Restricted Stock Unit Award is subject to the terms and conditions of the Addendum for Non-US Employees.
- 7. Your Restricted Stock Unit Award is not transferable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 8. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.



Cash Performance Award

DATE: <<Date>>, 2021

TO: «Name»

Here are the details for your Cash Performance Award:

Your business unit - XXX
The Performance Period is the [three]-year period - <<Date>>>, 2021
Your target Cash Performance Award payout at the 100% level - XXX

The actual Cash Performance Award amount to be paid to you, if any, will be derived from the Cash Performance Payout Table included in this Award agreement.

Your Cash Performance Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan ("Plan"), which terms and provisions are expressly incorporated into and made a part of the award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the Plan. A copy of the Plan can be found at www.dovercorporation.com in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 18, 2021, Appendix A.

In addition, your Cash Performance Award is subject to the following:

- 1. Within two and one-half months following the end of the Performance Period, your Dover Operating Company will pay you a Cash Performance Award payout if your business unit has reached certain levels of internal total shareholder return ("iTSR"), as set forth in the Cash Performance Payout Table, and the other conditions of your Cash Performance Award are satisfied. In order to receive a payment in respect of your Cash Performance Award, you must remain employed and in good standing with Dover or its Affiliate until the end of the Performance Period, except as otherwise provided in the Plan.
- 2. A summary of the definition of iTSR for your business unit is set forth in the Definition of iTSR included in this Award agreement.
- 3. The aggregate maximum cash payout for each business unit (determined after applying the individual payout limitation noted in the next sentence, if applicable) in respect of all Cash Performance Awards for a specific Performance Period shall not exceed the product of (i) 1.75%, times (ii) the sum of the business unit's change in entity value plus free cash flow (as such terms are defined in the Definition of iTSR) for that Performance Period. In no event will the Cash Performance Award payout to any one individual exceed \$10 million for the Performance Period.
- 4. As a condition of receiving your Cash Performance Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging any. Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging and

Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging Policy and Anti-pledging Policy, and the Clawback Policy, by contacting the Benefits Department at 630-541-1540.

- 5. For Non-US Employees, your Cash Performance Award is subject to the terms and conditions of the Addendum for Non-US Employees.
- 6. Your Cash Performance Award is not transferrable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 7. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.

Cash Performance Payout Table

iTSR for Performance Period	Payout (% of target)
<5%	0%
5%	25%
8%	100%
16%	300%
≥30%	500%

The payout formula will be applied on a sliding scale based on the business unit's iTSR for the Performance Period.

Definition of iTSR

Conceptual formula for iTSR calculation:

$$iTSR_x = \frac{\Delta Entity \, Value_x + \, Free \, Cash \, Flow_x}{Starting \, Entity \, Value} - 1$$

Explanation of iTSR formula:

Change in entity value is nine times the change in EBITDA values, comparing the full base year to the full final year of the performance period. The base year iTSR is the minimum value of an Operating Company, to which the 9X multiple is applied to calculate an EV. The base year iTSR is calculated using the highest of the following:

- (i) Base-Year EBITDA
- (ii) 10% of Base-Year Sales
- (iii) 90% of Prior-to-Base-Year iTSR Base

Free cash flow is the cash flow generated by your business unit, including your business unit's operating profit plus depreciation, amortization and proceeds from dispositions, less taxes and investments made for future growth (capital spending, working capital and acquisitions) and adjusted for other non-recurring items.

EBITDA is pre-tax income adjusted for non-operating and non-recurring items plus depreciation and amortization.

Mathematical Formula for 3 Year iTSR Cash Performance Plan payout:

$$iTSR_3 = \sqrt[3]{1 + \frac{\Delta EV_1 + \Delta EV_2 + \Delta EV_3 + FCF_1 + FCF_2 + FCF_3}{|\Box|}} - 1$$

Rules for Transfers/Promotions

The following rules will apply to you if you are transferred from one Dover business unit to another Dover business unit. These rules apply to all Cash Performance payments you may be entitled to under this and any other Cash Performance Award under the Plan you may have, as if part of your original Award.

- (i) For the first Cash Performance payment date that occurs after your transfer, any Cash Performance payment that may be due will be based on the performance of your old business unit.
- (ii) For the second Cash Performance payment date that occurs after your transfer, any Cash Performance payment that may be due will be based on the performance of either your old business unit or your new business unit, whichever results in the higher payment to you.
- (iii) For the third Cash Performance payment date that occurs after your transfer, any Cash Performance payment that may be due will be based on the performance of your new business unit.
- (iv) Any Cash Performance payment under an award made at one business unit that becomes payable after you transfer to another business unit will still be based on that Award's original dollar amount.

For purposes of these rules your old business unit is the business unit indicated on your Award. Your new business unit is the business unit where you are employed on the payment date.



SSAR Award

DATE: April 1, 2022

TO: <<Name>>

Here are the details for your SSAR grant:

Number of shares of Dover Common Stock - <<# of Shares>>

SSAR Base Price Per Share Date of Grant Expiration Date
\$xx.xx
February 11, 2022
February 11, 2032

Your Stock Settled Appreciation Right (SSAR) Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan ("Plan"), which terms and provisions are expressly incorporated into and made a part of the Award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the Plan. A copy of the Plan can be found at www.dovercorporation.com, in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 18, 2021, Appendix A.

In addition, your SSAR Award is subject to the following:

- 1. Your SSAR Award will be eligible to vest and become exercisable on the third anniversary of the Grant Date; provided, that you remain employed and in good standing with Dover or its Affiliate on such vesting date, except as otherwise provided in the Plan. No cash payment is required to exercise a SSAR Award.
- 2. It is your responsibility to keep track of your SSAR Award and to ensure that you exercise your SSAR Award before it expires. Dover will not remind or notify you that your SSAR Award is nearing its expiration date.
- 3. Your SSAR Award is subject to earlier termination, exercisability and forfeiture provisions as provided in the Plan.
- 4. Upon exercise of your SSAR Award, you will be entitled to receive from Dover that number of whole shares of Common Stock equal in value, on the date of exercise of the SSAR Award, to the excess of (A) the value of a share of Common Stock on the date of exercise of the SSAR Award multiplied by the number of SSARs being exercised over (B) the sum of (i) the per share base price of the SSAR Award being exercised multiplied by the number of SSARs being exercised, plus (ii) unless you elect to pay such tax in cash, any amount of tax that must be withheld in connection with such exercise; provided, however, for any Section 16 Person, (B) above will automatically include any amount of tax that must be withheld in connection with such exercise. Fractional shares shall be settled in any manner determined by the Committee.
- 5. As a condition of receiving your SSAR Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging any Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging and Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging and Anti-pledging Policy and the Clawback Policy by contacting the Benefits Department at 630-541-1540.
- For Non-US Employees, your SSAR Award is subject to the terms and conditions of the Addendum for Non-US Employees attached to your SSAR Award letter.
- 7. Your SSAR Award is not transferrable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 8. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.



Restricted Stock Unit Award

DATE: April 1, 2022 Date of Grant: February 11, 2022

TO: «Name» xxxxx Restricted Stock Units

Your Restricted Stock Unit Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan ("Plan"), which terms and provisions are expressly incorporated into and made a part of the award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the Plan. A copy of the Plan can be found at www.dovercorporation.com, in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 18, 2021, Appendix A.

In addition, your Restricted Stock Unit Award is subject to the following:

- A Restricted Stock Unit is a bookkeeping entry on the books of Dover. No shares of Dover common stock shall be issued to you in respect of the
 Restricted Stock Unit Award until the restrictions have lapsed at the end of a Restricted Period. Within 30 days following the end of the Restricted
 Period, Dover shall issue shares of Common Stock in your name equal to the number of Restricted Stock Units that have vested during the
 Restricted Period less applicable tax withholding.
- 2. You will be eligible to vest in the Restricted Stock Unit Award with respect to 33% of your Restricted Stock Units on the March 15th following the first anniversary of the Date of Grant (or the last trading day preceding if such date is not a trading day), with respect to 33% of your Restricted Stock Units on the March 15th following the second anniversary of the Date of Grant (or the last trading day preceding if such date is not a trading day) and with respect to 34% of your Restricted Stock Units on the March 15th following the third anniversary of the Date of Grant (or the last trading day preceding if such date is not a trading day), subject to you remaining employed and in good standing with Dover or its Affiliates until the end of each respective Restricted Period, except as otherwise provided in the Plan.
- 3. During the Restricted Period you shall not have any rights of a stockholder or the right to receive any dividends declared and other distributions paid with respect to the Restricted Stock Units. Within 30 days after the end of each Restricted Period you shall be paid all Dividend Equivalents with respect to the Restricted Stock Units that have vested.
- 4. You do not have any voting rights with respect to Restricted Stock Units.
- 5. As a condition of receiving your Restricted Stock Unit Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging any Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging and Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging and Anti-pledging Policy, and the Clawback Policy, by contacting the Benefits Department at 630-541-1540.
- 6. For Non-US Employees, your Restricted Stock Unit Award is subject to the terms and conditions of the Addendum for Non-US Employees.
- 7. Your Restricted Stock Unit Award is not transferable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 8. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.



Cash Performance Award

DATE: April 1, 2022

TO: «Name»

Here are the details for your Cash Performance Award:

Your business unit - «Company»
The Performance Period is the [three]-year period - 2022-2024
Your target Cash Performance Award payout at the 100% level - «Targetlocal» «Currency_Code»

The actual Cash Performance Award amount to be paid to you, if any, will be derived from the Cash Performance Payout Table included in this Award agreement.

Your Cash Performance Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan ("Plan"), which terms and provisions are expressly incorporated into and made a part of the award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings given to them in the Plan. A copy of the Plan can be found at www.dovercorporation.com in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 18, 2021, Appendix A.

In addition, your Cash Performance Award is subject to the following:

- 1. Within two and one-half months following the end of the Performance Period, your Dover Operating Company will pay you a Cash Performance Award payout if your business unit has reached certain levels of internal total shareholder return ("iTSR"), as set forth in the Cash Performance Payout Table, and the other conditions of your Cash Performance Award are satisfied. In order to receive a payment in respect of your Cash Performance Award, you must remain employed and in good standing with Dover or its Affiliate until the end of the Performance Period, except as otherwise provided in the Plan.
- 2. A summary of the definition of iTSR for your business unit is set forth in the Definition of iTSR included in this Award agreement.
- 3. The aggregate maximum cash payout for each business unit (determined after applying the individual payout limitation noted in the next sentence, if applicable) in respect of all Cash Performance Awards for a specific Performance Period shall not exceed the product of (i) 1.75%, times (ii) the sum of the business unit's change in entity value plus free cash flow (as such terms are defined in the Definition of iTSR) for that Performance Period. In no event will the Cash Performance Award payout to any one individual exceed \$10 million for the Performance Period.
- 4. As a condition of receiving your Cash Performance Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging any. Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging and

Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging Policy and Anti-pledging Policy, and the Clawback Policy, by contacting the Benefits Department at 630-541-1540.

- 5. For Non-US Employees, your Cash Performance Award is subject to the terms and conditions of the Addendum for Non-US Employees.
- 6. Your Cash Performance Award is not transferrable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 7. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.

Cash Performance Payout Table

iTSR for Performance Period	Payout (% of target)
<5%	0%
5%	25%
8%	100%
16%	300%
≥30%	500%

-		

The payout formula will be applied on a sliding scale based on the business unit's iTSR for the Performance Period.

Definition of iTSR

Conceptual formula for iTSR calculation:

$$iTSR_x = \frac{\Delta Entity \, Value_x + \, Free \, Cash \, Flow_x}{Starting \, Entity \, Value} - 1$$

$\label{prop:eq:explanation} \textbf{Explanation of iTSR formula:}$

Change in entity value is nine times the change in EBITDA values, comparing the full base year to the full final year of the performance period. The base year iTSR is the minimum value of an Operating Company, to which the 9X multiple is applied to calculate an EV. The base year iTSR is calculated using the highest of the following:

- (i) Base-Year EBITDA
- (ii) 10% of Base-Year Sales
- (iii) 90% of Prior-to-Base-Year iTSR Base

Free cash flow is the cash flow generated by your business unit, including your business unit's operating profit plus depreciation, amortization and proceeds from dispositions, less taxes and investments made for future growth (capital spending, working capital and acquisitions) and adjusted for other non-recurring items.

EBITDA is pre-tax income adjusted for non-operating and non-recurring items plus depreciation and amortization.

Mathematical Formula for 3 Year iTSR Cash Performance Plan payout:

$$iTSR_3 = \sqrt[3]{1 + \frac{\Delta EV_1 + \Delta EV_2 + \Delta EV_3 + FCF_1 + FCF_2 + FCF_3}{\square}} - 1$$

Rules for Transfers/Promotions

The following rules will apply to you if you are transferred from one Dover business unit to another Dover business unit. These rules apply to all Cash Performance payments you may be entitled to under this and any other Cash Performance Award under the Plan you may have, as if part of your original Award.

- For the first Cash Performance payment date that occurs after your transfer, any Cash Performance payment that may be due will be based on the performance of your old business unit.
- (iii) For the second Cash Performance payment date that occurs after your transfer, any Cash Performance payment that may be due will be based on the performance of either your old business unit or your new business unit, whichever results in the higher payment to you.

 (iii) For the third Cash Performance payment date that occurs after your transfer, any Cash Performance payment that may be due will be based on the
- performance of your new business unit.
- (iv) Any Cash Performance payment under an award made at one business unit that becomes payable after you transfer to another business unit will still be based on that Award's original dollar amount.

For purposes of these rules your old business unit is the business unit indicated on your Award. Your new business unit is the business unit where you are employed on the payment date.



Performance Share Award

DATE: April 1, 2022

TO: «Name»

Here are the details for your Performance Share Award:

The Performance Period is the [three]-year period - 2022-2024 Your target Performance Share Award at the 100% level - «# of Shares» Shares

The actual Performance Shares to be paid to you, if any, will be derived from the Performance Share Payout Table included in this Award agreement.

Your Performance Share Award is subject to all the terms and provisions of the Dover Corporation ("Dover") 2021 Omnibus Incentive Plan ("Plan"), which terms and provisions are expressly incorporated into and made a part of the Award as if set forth in full herein. Capitalized terms used but not defined herein have the meanings ascribed to them in the Plan. A copy of the Plan can be found at www.dovercorporation.com, in the Investor Information area, under SEC Filings, in the Proxy Statement filed on March 18, 2021, Appendix A.

In addition, your Performance Share Award is subject to the following:

- 1. The Performance Share Award will be eligible to vest based on Dover's TSR Ranking, as set forth in the Performance Share Payout Table included in this Award agreement, and if the other conditions of your Performance Share Award are satisfied. Dover will issue you shares of Common Stock in respect of the Performance Share Award no later than two and one-half months following the end of the Performance Period. In order to receive shares of Common Stock in respect of your Performance Share Award, you must remain employed in good standing with Dover or its Affiliate until the end of the Performance Period, except as otherwise provided in the Plan. For any Section 16 Person, Dover will issue shares of Common Stock for the vested Performance Share Award less a number of shares of Common Stock in respect of applicable tax withholding.
- 2. A summary of the components of the Dover's TSR Ranking is set forth in the Definitions Section included in this Award agreement.
- 3. As a condition of receiving your Performance Share Award, you agree to be bound by the terms and conditions of Dover's Anti-hedging and Anti-pledging Policy (which is part of Dover's Securities Trading and Confidentiality Policy) and by Dover's Clawback Policy, as such policies may be in effect from time to time. The Anti-hedging and Anti-pledging Policy prohibits hedging or pledging any Dover equity securities held by you or certain designees, whether such Dover securities are, or have been, acquired under the Plan, another compensation plan sponsored by Dover, or otherwise. Please review the Anti-hedging and Anti-pledging Policy to make sure that you are in compliance. You may obtain a copy of the current version of the Anti-hedging and Anti-pledging Policy, and the Clawback Policy, by contacting the Benefits Department at 630-541-1540.

- 4. For Non-US Employees, your Performance Share Award is subject to the terms and conditions of the Addendum for Non-US Employees.
- 5. Your Performance Share Award is not transferrable by you other than by will or the laws of descent and distribution and in accordance with the applicable terms and conditions of the Plan.
- 6. Dover reserves the right to amend, modify, or terminate the Plan at any time in its discretion without notice.

Performance Share Payout Table

Dover's TSR Ranking for Performance Period	Payout (% of target)
90th Percentile or above	300%
75th Percentile	200%
50th Percentile	100%
25th Percentile	50%
Below 25th Percentile	0%

If Dover's TSR Ranking for the Performance Period is between two of the levels set forth in the table above, the Payout percentage will be determined using linear interpolation. In the event Dover's TSR for the Performance Period is negative, the Payout percentage will not exceed 100%.

Definitions

For purposes of this Award, the terms below have the following meanings:

Beginning Stock Price: The closing price of a share of stock, as reported in transactions on the applicable stock exchange or market, on the trading day immediately prior to the first trading day of the Performance Period.

Change in Stock Price: The Ending Stock Price minus the Beginning Stock Price.

TSR: (Change in Stock Price + Dividends Paid)/Beginning Stock Price

Dividends Paid: The total of all dividends paid on one share of stock during the Performance Period, provided that dividends will be treated as though they are reinvested on the date the dividend is paid.

Ending Stock Price: The volume-weighted average closing price of a share of stock, as reported in transactions on the applicable stock exchange or market, during the last 30 trading days of the Performance Period.

Peer Group: The companies in the S&P 500 Industrials Sector; provided, that (i) the Peer Group will not include any company that is not publicly traded (*i.e.*, has no ticker symbol) at the end of the Performance Period; (ii) the performance of the surviving entities will be used in the event there is a combination of any of the Peer Group companies during the Performance Period; and (iii) no new companies will be added to the Peer Group during the Performance Period (including a company that is not a Peer Group member which acquires a member of the Peer Group). Notwithstanding the foregoing, the Dover Compensation Committee may disregard any of these guidelines when evaluating changes in the membership of the Peer Group during the Performance Period in any particular situation, as it deems reasonable in the exercise of its discretion.

TSR Ranking: The percentage of companies in the Peer Group that have a lower TSR for the Performance Period than Dover.

Dover Corporation - Domestic and Foreign Subsidiaries

Dover Corporation - Domestic and Foreign Subsidiaries	
Company Name	Where Incorporated
Domestic	
Acme Cryo Intermediate Inc.	Delaware
Acme Cryogenics, Inc.	Pennsylvania
Alfred Fueling Systems Inc.	Delaware
Anman, LLC	Delaware
Anthony Equity Holdings, Inc.	Delaware
Anthony Holdings, Inc.	Delaware
Anthony Mexico Holdings LLC	Delaware
Anthony North Holdco, Inc.	Delaware
Anthony Specialty Glass LLC	Delaware
Anthony TemperBent GP LLC	Delaware
Anthony, Inc.	Delaware
Audax ECII Blocker, Inc.	Delaware
Auto Glanz Solutions, LLC	Delaware
AvaLAN Wireless Systems Incorporated	California
Belanger, Inc.	Delaware
Belvac Production Machinery, Inc.	Virginia
Blue Bite LLC	Delaware
Canada Organization & Development LLC	Delaware
	California
CDS Visual, Inc.	
CEP Liquidation, LLC	Delaware
Children Broducto Company	Georgia
Colder Products Company	Minnesota
Cook Compression, LLC	Delaware
Cook-MFS, Inc.	Delaware
CP Formation LLC	Delaware
CPC Europe, Inc.	Minnesota
CPI Products, Inc.	Delaware
Cryogenic Experts, LLC	Delaware
DD1 Inc.	Delaware
DDI Properties, Inc.	California
Delaware Capital Formation, Inc.	Delaware
Delaware Capital Holdings, Inc.	Delaware
De-Sta-Co Cylinders, Inc.	Delaware
DFH Corporation	Delaware
Dosmatic U.S.A., Inc.	Texas
Dover Business Services LLC	Delaware
Dover DEI Services, Inc.	Delaware
Dover Engineered Products Segment, Inc.	Delaware
Dover Europe, Inc.	Delaware
Dover Fueling Solutions Segment, Inc.	Delaware
Dover Global Holdings, LLC	Delaware
Dover Imaging & Identification Segment, Inc.	Delaware
Dover International Operations Inc.	Delaware
Dover International Ventures Inc.	Delaware
Dover Overseas Ventures, Inc.	Delaware
Dover Pumps & Process Solutions Segment, Inc.	Delaware
Dover Refrigeration & Food Equipment Segment, Inc.	Delaware
Dover WSCR Holding LLC	Delaware
Dover WSCR LLC	Delaware
Dow-Key Microwave Corporation	Delaware
ECI - IGT Holdings, LLC	Delaware
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ECI Holding Company, LLC	Delaware
ECI (Mexico), LLC	Delaware
Engineered Controls International, LLC	Delaware
EOA Systems, Inc.	Delaware
GAL, LLC	Virginia
GIIER, LLC	Virginia
	Illinois
Highland Park Insurance Company	
Hill PHOENIX WIC, LLC	Delaware
Hill PHOENIX, Inc.	Delaware Delaware
Hydro Systems Company Ladvatrial Marian Control LLC	
Industrial Motion Control, LLC	Delaware
Innovative Control Systems, Inc.	Pennsylvania
Inpro/Seal LLC	Delaware
JK Group USA, Inc.	Tennessee
K S Boca Inc.	Florida
K&L Microwave, Inc.	Delaware
Knappco, LLC	Delaware
KS Formation, Inc.	Delaware
KS Liquidation, Inc.	Texas
KSLP Liquidation, L.P.	Texas
Maag Gala, Inc.	Virginia
Maag Pump Systems (US), Inc.	Delaware
Maag Reduction, Inc.	North Carolina
Macro Technologies, LLC	Ohio
Marathon Equipment Company (Delaware)	Delaware
MARKEM-IMAJE Corporation	New Hampshire
Midland Manufacturing, LLC	Delaware
Midwest Cryogenics, Inc.	Minnesota
MIP Holdings, Inc.	Delaware
Northeast Services, Inc.	New Jersey
Northeast Services, Inc. Northern Lights (Nevada), Inc.	New Jersey Nevada
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP	New Jersey
Northeast Services, Inc. Northern Lights (Nevada), Inc.	New Jersey Nevada
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc.	New Jersey Nevada Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC	New Jersey Nevada Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc.	New Jersey Nevada Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc.	New Jersey Nevada Delaware Delaware Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc.	New Jersey Nevada Delaware Delaware Delaware Delaware California
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware Delaware Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC	New Jersey Nevada Delaware Delaware Delaware California Delaware Delaware Delaware Delaware Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc.	New Jersey Nevada Delaware Delaware Delaware California Delaware Delaware Delaware Delaware Delaware Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fuel management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc.	New Jersey Nevada Delaware Delaware Delaware California Delaware Delaware Delaware Delaware Delaware Delaware Delaware New Jersey
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc.	New Jersey Nevada Delaware Delaware Delaware California Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc.	New Jersey Nevada Delaware Delaware Delaware California Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC	New Jersey Nevada Delaware Delaware Delaware California Delaware
Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC	New Jersey Nevada Delaware Delaware Delaware California Delaware New Jersey Delaware Delaware Delaware Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation	New Jersey Nevada Delaware Delaware Delaware California Delaware New Jersey Delaware Delaware Delaware Delaware Delaware Delaware Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OFW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation Robohand, Inc.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation Robohand, Inc. SE Liquidation, LLC	New Jersey Nevada Delaware Delaware Delaware California Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation Robohand, Inc. SE Liquidation, LLC Seabiscuit Motorsports, Inc.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation Robohand, Inc. SE Liquidation, LLC Seabiscuit Motorsports, Inc. Shine Bloom - ECI A Blocker Corp.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware Delaware Delaware Delaware Delaware Delaware Delaware Delaware Delaware New Jersey Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation Robohand, Inc. SE Liquidation, LLC Seabiscuit Motorsports, Inc. Shine Bloom - ECI A Blocker Corp. Shine Bloom - ECI Blocker Corp.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware Delaware Delaware Delaware Delaware Delaware Delaware Delaware Delaware New Jersey Delaware
Northeast Services, Inc. Northern Lights (Nevada), Inc. Northern Lights Funding LP Northern Lights Investments LLC Nova Controls, Inc. OK International Holdings, Inc. OK International, Inc. OPW Engineered Systems, LLC OPW Fluids Group, Inc. OPW Fluids Group, Inc. OPW Fuel Management Systems, Inc. OPW Fueling Components, LLC PDQ Manufacturing, Inc. Pike Machine Products, Inc. PISCES by OPW, Inc. Pole/Zero Acquisition, Inc. PSG California LLC Pump Management Services Co., LLC Revod Corporation Robohand, Inc. SE Liquidation, LLC Seabiscuit Motorsports, Inc. Shine Bloom - ECI A Blocker Corp. Shine Bloom - ECI S Blocker Corp.	New Jersey Nevada Delaware Delaware Delaware Delaware California Delaware

Superior Holding LLC	Ohio
Superior Holding, LLC	Ohio
Superior Products, LLC	Ohio
SWEP North America, Inc.	Delaware
Sys-Tech Solutions, Inc.	New Jersey
Tartan Textile Services, Inc.	Delaware
The Espy Corporation	Texas
The Heil Co.	Delaware
TTSI III, Inc.	Delaware
Tulsa Winch, Inc.	Delaware
TXHI, LLC	Delaware
Unattended Payment Solutions, LLC	Delaware
Val TemperBent Glass, L.P.	Georgia
Vehicle Service Group, LLC	Delaware
Warn Automotive, LLC	Delaware
Waukesha Bearings Corporation	Delaware
Wayne Fueling Systems LLC	Delaware
WSCR Corp.	Delaware
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Foreign	
Advansor A/S	Denmark
Advansor Dover International (Poland) sp. z o.o.	Poland
Advansor Germany GmbH	Germany
Alfred Fueling Systems Holdco Ltd.	Cayman Islands
Alfred Fueling Systems Intermediate Holdco Ltd.	Cayman Islands
Anthony International Foreign Sales Corp.	Barbados
Anthony International Holding Company	Cayman Islands
APM Grundstücksverwaltungsgesellschaft mbH & Co. KG	Germany
BELVAC CR, spol s r.o.	Czech Republic
Belvac Middle East FZE	Dubai
BlitzRotary GmbH	Germany
BSC Filters Limited	United Kingdom
Butler Engineering and Marketing S.P.A.	Italy
Caldera	France
Chief Automotive Technologies (Shanghai) Trading Company, Ltd.	China
Colder Products Company GmbH	Germany
Colder Products Company LTD	Hong Kong
Cook Compression Limited	United Kingdom
De Sta Co (Asia) Company, Limited	Thailand
DE-STA-CO Benelux B.V.	Netherlands
DESTACO Europe GmbH	Germany
DE-STA-CO FRANCE	France
DE-STA-CO Shanghai Co. Ltd.	China
DESTACO UK Limited	England & Wales
DFS Netherlands B.V.	Netherlands
Dositec Sistemas SL	Spain
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Dover (China) Investment Co., Ltd.	China
Dover (Schweiz) Holding GmbH	Switzerland
Dover (Shanghai) Industrial Co., Ltd.	China
Dover (Shenzhen) Industrial Equipment Manufacturing Co., Ltd.	China
Dover (Suzhou) Industrial Equipment Manufacturing Co., Ltd.	China
Dover Asia Trading Private Ltd.	Singapore
Dover Australia Holdings Pty Limited	Australia
Dover Business Services EMEA Limited	Scotland
Dover Business Services Europe S.R.L.	Romania
Dover Business Services Philippines Corporation	Philippines

Dover Canada Holdings ULC	British Columbia
Dover Canada Operations ULC	British Columbia
Dover CLP Formation Limited Partnership	British Columbia
Dover Corporation Regional Headquarters	China
Dover Denmark Holdings ApS	Denmark
Dover do Brasil Ltda.	Brazil
Dover EMEA FZCO	Dubai
Dover Energy UK Ltd	England & Wales Switzerland
Dover Europe Sarl Dover Fluids UK Ltd	
	United Kingdom
Dover France Holdings	France
Dover France Participations	France
Dover France Technologies	France
Dover Fueling Solutions UK Limited	United Kingdom
Dover Germany GmbH	Germany
Dover Holdings de Mexico S.A. de C.V.	Mexico
Dover India Pvt. Ltd.	India
Dover Intercompany Services UK Limited	England & Wales
Dover International B.V.	Netherlands
Dover International ithalat ihracat ve Pazarlama Limited Sirketi	Turkey
Dover Italy Holdings S.r.l.	Italy
Dover Luxembourg Finance Sarl	Luxembourg
Dover Luxembourg Participations Sarl	Luxembourg
Dover Luxembourg S.a.r.l.	Luxembourg
Dover Luxembourg Services Sarl	Luxembourg
Dover Operations South Africa (Pty) Ltd	South Africa
Dover Refrigeration & Food Equipment UK Ltd	United Kingdom
Dover Resources International de Mexico S. de R.L. C.V.	Mexico
Dover Solutions Colombia SAS	Colombia
Dover Southeast Asia (Thailand) Ltd.	Thailand
Dover Spain Holdings, S.L.	Spain
Dover Switzerland Participations GmbH	Switzerland
Dover UK Pensions Limited	United Kingdom
Dresser Wayne Data Technology (Shanghai) Co., Ltd.	China
Dresser Wayne Fuel Equipment (Shanghai) Co. Ltd.	China
Ebs-Ray Holdings Pty Ltd	New South Wales
Ebs-Ray Industries Pty Ltd	New South Wales
Ebs-Ray Pumps Pty Ltd	New South Wales
ECI RegO Servicios, S. de R.L. de C.V.	
ECI RegO, S. de R.L. de C.V.	Mexico Movico
em-tec GmbH	Mexico
	Germany
Ettlinger Kunststoffmaschinen GmbH	Germany
Fairbanks Environmental Limited	England & Wales
Fibrelite Composites Limited	England & Wales
Fibresec Holdings Limited	England & Wales
Fibresec Limited	England & Wales
Guangdong Tokheim LIYUAN Oil Industry Technology Limited Company	China
Hill Phoenix Costa Rica, Sociedad De Responsabilidad Limitada	Costa Rica
Hill Phoenix de Mexico, S.A. de C.V.	Mexico
Hill Phoenix El Salvador, Limitada de Capital Variable	El Salvador
Hill Phoenix Guatemala, Sociedad Anonima	Guatemala
Hill Phoenix Honduras, Sociedad Anonima	Honduras
Hill Phoenix Nicaragua, Sociedad Anonima	Nicaragua
Hiltap Fittings Ltd.	Canada
Hydro Systems Europe Ltd.	United Kingdom

JK Group S.P.A.	Italy
K&L Microwave DR, Inc.	British Virgin Islands
Kiian Digital (Shanghai) Co., Ltd.	China
KPS (Beijing) Petroleum Equipment Trading Co, Ltd.	China
KPS Fueling Solutions Sdn. Bhd. KPS Hong Kong Holding Limited	Malaysia
	Hong Kong
KPS UK Limited	England & Wales
LIQAL, B.V.	Netherlands
Liquip International Pty Limited	Victoria
Maag Automatik Plastics Machinery (Shanghai) Co. Ltd.	China
Maag Germany GmbH	Germany
Maag Italy S.R.L.	Italy
Maag Pump Systems	France
Maag Pump Systems AG	Switzerland
Maag Service (Malaysia) Sdn. Bdn.	Malaysia
Maag Service (Taiwan) Ltd.	Taiwan
Maag Systems (Thailand) Limited	Thailand
MARKEM FZ SA	Uruguay
Markem Imaje Center of Competencies Spain, S.L.U.	Spain
Markem-Imaje - Unipessoal, Lda	Portugal
Markem-Imaje (China) Co., Limited	China
Markem-Imaje A/S	Denmark
Markem-Imaje AB	Sweden
Markem-Imaje AG	Switzerland
Markem-Imaje AS	Norway
Markem-Imaje B.V.	Netherlands
Markem-Imaje Co., Ltd.	South Korea
Markem-Imaje CSAT GmbH	Germany
Markem-Imaje GmbH	Germany
Markem-Imaje Holding	France
Markem-Imaje Identificacao de Produtos Ltda.	Brazil
Markem-Imaje Inc.	Canada
Markem-Imaje India Private Limited	India
Markem-Imaje Industries	France
Markem-Imaje Industries Limited	United Kingdom
Markem-Imaje KK	Japan
Markem-Imaje Limited	Hong Kong
Markem-Imaje Limited	United Kingdom
Markem-Imaje LLC	Russian Federation
Markem-Imaje Ltd.	Taiwan
Markem-Imaje Ltd.	Thailand
Markem-Imaje N.V.	Belgium
Markem-Imaje Oy	Finland
Markem-Imaje Philippines Corporation	Philippines
Markem-Imaje Pty. Ltd.	Australia
Markem-Imaje S.A.	Argentina
Markem-Imaje S.A. de C.V.	Mexico
Markem-Imaje S.r.l.	Italy
Markem-Imaje SAS	France
Markem-Imaje Sdn. Bhd.	Malaysia
Markem-Imaje Singapore Pte. Ltd.	Singapore
Markem-Imaje Spain S.A.	Spain
Markpoint Holding AB	Sweden
Mouvex	France
MS Printing Solutions S.R.L.	Italy
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Officine Meccaniche Sirio S.R.L.	Italy
OK International Ltd.	United Kingdom
OPW Fluid Transfer Group Europe B.V.	Netherlands
OPW Fluid Transfer Solutions (Jiang Su) Co., Ltd.	China
OPW Fueling Components (Suzhou) Co., Ltd.	China
OPW Malaysia Sdn. Bhd.	Malaysia
OPW Slovakia s.r.o.	Slovakia
OPW Sweden AB	Sweden
	Poland
Petro Vend Sp. z o.o.	
Precision Brasil Equipamentos e Servicos Para Postos de Combustiveis Ltda.	Brazil Brazil
Precision Service - Servicos de Manutencao e Instalacao de Postos de Abastecimento de Combustivel Ltda.	
PSD Codax Holdings Limited	England & Wales
PSD Codax Limited	England & Wales
PSG (Shanghai) Co., Ltd.	China
PSG (Tianjin) Co., Ltd.	China
PSG Germany GmbH	Germany
Quantex Arc Limited	England & Wales
Quantex Patents Limited	England & Wales
RAV France	France
Ravaglioli S.P.A.	Italy
Reduction Engineering GmbH	Germany
RegO (Shanghai) Trading Co., Ltd.	China
Rego GmbH	Germany
RegO Holding GmbH	Germany
RegO Valve (Shanghai) Company, Ltd.	China
Revod Luxembourg S.a.r.l.	Luxembourg
Revod Sweden AB	Sweden
Rosario Handel B.V.	Netherlands
Rotary Lift Consolidated (Haimen) Co., Ltd.	China
Shanghai RegO Flow Technology Company, Ltd.	China
Solaris Laser S.A.	Poland
Space S.R.L.	Italy
Start Italiana S.R.L.	-
	Italy Finland
Swep Energy Oy	Finland
SWEP France	France
SWEP Germany GmbH	Germany
Swep International A.B.	Sweden
Swep Japan K.K.	Japan
SWEP Malaysia Sdn. Bhd.	Malaysia
SWEP Slovakia s.r.o.	Slovakia (slovak Republic)
SWEP Technology (Suzhou) Co., Ltd.	China
Systech GB Limited	United Kingdom
Systech Shanghai Consulting Company Limited	China
Tokheim Belgium	Belgium
Tokheim China Company Limited	Hong Kong
Tokheim GmbH	Germany
Tokheim Group	France
Tokheim Hengshan Technologies (Guangzhou) Co. Ltd.	China
Tokheim Holding B.V.	Netherlands
Tokheim India Private Limited	India
Tokheim Sofitam Applications	France
TQC Quantium Quality, S.A. de C.V.	Mexico City, District Federal
TWG Canada Consolidated Inc.	British Columbia
Vectron Frequency Devices (Shanghai) Co., Ltd	China
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Vehicle Service Group UK Limited	England & Wales
Vos Food Store Equipment Ltd.	Ontario
Waukesha Bearings Limited	United Kingdom
Waukesha Bearings Russia LLC	Russian Federation
Wayne Fueling Systems (Rus) Limited Liability Company	Russian Federation
Wayne Fueling Systems Australia Pty Ltd	Victoria
Wayne Fueling Systems Canada ULC	British Columbia
Wayne Fueling Systems Italia S.R.L.	Italy
Wayne Fueling Systems Ltd.	Cayman Islands
Wayne Fueling Systems Sweden AB	Sweden
Wayne Fueling Systems UK Holdco Ltd.	England & Wales
Wayne Industria e Comercio Ltda.	Brazil

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-236755) and Form S-8 (Nos. 333-01419, 333-64160, 333-125072, 333-183414, 333-192604, and 333-255993) of Dover Corporation of our report dated February 11, 2022 relating to the financial statements and financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP Chicago, Illinois February 11, 2022

Certification

I, Brad M. Cerepak, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Dover 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - 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 11, 2022

/s/ Brad M. Cerepak

Brad M. Cerepak Senior Vice President & Chief Financial Officer (Principal Financial Officer)

Certification

I, Richard J. Tobin, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Dover 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - 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 11, 2022 /s/ Richard J. Tobin

Richard J. Tobin

President and Chief Executive Officer

Certification

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 with Respect to the Annual Report on Form 10-K for the Period ended December 31, 2021 of Dover Corporation

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Dover Corporation, a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

- 1. The Company's Annual Report on Form 10-K for the period ended December 31, 2021 (the "**Form 10-K**") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934, as amended; and
- 2. Information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 11, 2022 /s/ Richard J. Tobin

Richard J. Tobin

President and Chief Executive Officer

Dated: February 11, 2022 /s/ Brad M. Cerepak

Brad M. Cerepak

Senior Vice President & Chief Financial Officer

(Principal Financial Officer)

The certification set forth above is being furnished as an exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and is not being filed as part of the Form 10-K or as a separate disclosure document of the Company or the certifying officers.