

REFINITIV

DELTA REPORT

10-K

GTLS PR B - CHART INDUSTRIES INC
10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS	4715
CHANGES	425
DELETIONS	1706
ADDITIONS	2584

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

Form 10-K

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

For the fiscal year ended **December 31, 2022** **December 31, 2023**

OR

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

For the transition period from to

Commission File No. 1-11442

CHART INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

State or other jurisdiction of
incorporation or organization

34-1712937

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

2200 Airport Industrial Drive, Suite 100, Ball Ground, Georgia 30107
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (770) 721-8800

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 \$0.01	GTLS	New York Stock Exchange
Depository shares, each representing 1/20th interest in a share of 6.75% Series B Mandatory Convertible Preferred Stock, par value \$0.01	GTLS.PRB	New York Stock Exchange

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

None

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

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

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

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

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

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

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

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

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

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

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

The aggregate market value of the voting common equity held by non-affiliates computed by reference to the price of \$167.38 \$159.79 per share at which the common equity was last sold, as of the last business day of the registrant's most recently completed second fiscal quarter, was \$6,102,449,841, \$6,798,628,114.

As of February 20, 2023 February 20, 2024, there were 42,721,378 42,277,870 outstanding shares of the Company's common stock, par value \$0.01 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following document are incorporated by reference into Part III of this Annual Report on Form 10-K: the definitive Proxy Statement to be used in connection with the Registrant's Annual Meeting of Stockholders to be held on May 25, 2023 May 21, 2024 (the "2023 "2024 Proxy Statement").

Except as otherwise stated, the information contained in this Annual Report on Form 10-K is as of December 31, 2022 December 31, 2023.

CHART INDUSTRIES, INC.

TABLE OF CONTENTS

	Page
PART I	
Item 1. Business	3
Item 1A. Risk Factors	10
Item 1B. Unresolved Staff Comments	22
Item 1C. Cybersecurity	21
Item 2. Properties	23
Item 3. Legal Proceedings	24
Item 4. Mine Safety Disclosures	24
Item 4A. Executive Officers of the Registrant	25
PART II	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	26
Item 6. [Reserved]	27
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	28
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	50
Item 8. Financial Statements and Supplementary Data	51
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	51
Item 9A. Controls and Procedures	51
Item 9B. Other Information	52
Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	52
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	53
Item 11. Executive Compensation	54
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	54
Item 13. Certain Relationships and Related Transactions, and Director Independence	54
Item 14. Principal Accounting Fees and Services	54
PART IV	
Item 15. Exhibits, Financial Statement Schedules	55
Item 16. Form 10-K Summary	55
SIGNATURES	56
INDEX TO FINANCIAL STATEMENTS	57
REPORTS OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	F-1
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS	F-65
INDEX TO EXHIBITS	E-1

	PART I
Item 1. Business	
	THE COMPANY
Overview	

Chart Industries, Inc., a Delaware corporation incorporated in 1992 (the "Company," "Chart," "we," "us," or "our" as used herein refers to Chart Industries, Inc. and our consolidated subsidiaries, unless the context indicates otherwise), is a leading an independent global manufacturer of highly engineered cryogenic equipment servicing multiple applications leader in the industrial design, engineering, and manufacturing of process technologies and equipment for gas and clean energy markets. We provide product and technology solutions to advance liquid molecule handling for the Nexus of Clean™ – clean power, clean water, clean food, and clean industrials, in our unique offering for the Nexus regardless of Clean™. Our molecule. The Company's unique product and solution portfolio across stationary and rotating equipment is used in every phase of the liquid gas supply chain, including upfront engineering, service and repair. Being at the forefront of the clean energy transition, repair from installation to preventive maintenance and digital monitoring. Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas CO2 Capture and water treatment, carbon capture among other applications. We are Chart is committed to excellence in environmental, social and corporate governance ("ESG") issues both for our its company as well as our its customers. With 29 64 global manufacturing locations and over 50 service centers from the United States to Asia, Australia, India, Europe and Europe, South America, we maintain accountability and transparency to our team members, suppliers, customers and communities.

Our primary customers are large, multinational producers and distributors of hydrocarbon, hydrogen and industrial gases and their end-users. We sell our products and services to more than 2,500 7,000 customers worldwide, having developed long-standing relationships with leading companies in the gas production, distribution and processing industries as well as those involved in liquefied natural gas (LNG), chemicals and industrial gasses. gases. Our well-established relationships extend to truck manufacturers in addition to those in other clean energy industries such as biofuels, hydrogen, water and CO2 carbon capture. Our customers include: Linde, Air Liquide, IVECO, Air Products, Shell, Chevron, ExxonMobil, Baker Hughes, Wison, Kathairos, Chick-fil-A, New Fortress Energy, Samsung, United Launch Alliance, and Blue Origin, some of whom have been purchasing our products for over 30 years.

We have achieved this competitive position by capitalizing on our technical expertise, broad product and service offering, reputation for a high quality global manufacturing footprint, and by focusing on attractive, growth markets. We have an established sales and customer support presence across the globe with manufacturing operations in the United States, Asia, India, Africa and Europe. For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, we generated sales of \$1,612.4 million \$3.4 billion, \$1,317.7 million \$1.6 billion, and \$1,177.1 million \$1.3 billion, respectively.

On November 9, 2022 March 17, 2023, we announced that we signed a definitive agreement to acquire completed the acquisition of Howden ("Howden") from affiliates of KPS Capital Partners (the "Acquisition"). The acquisition purchase price was \$4.4 billion. We financed the purchase price for the Howden is Acquisition with proceeds from borrowings under our senior secured revolving credit facility and term loans due March 2030, common and preferred stock issuance and a leading global provider private offering of mission critical air secured notes and gas handling products and services. We expect to close on the Acquisition within the next 45 days. unsecured notes. Howden, headquartered in the U.K., United Kingdom, is a leading global provider of mission critical air and gas handling products providing service and support to customers around the world in highly diversified end markets and geographies. The combination of Chart and Howden is complimentary complementary and furthers our global leadership position in highly engineered process technologies and products serving the Nexus of Clean™ – clean power, clean water, clean food and clean industrials.

As discussed in Item 3. Legal Proceedings, the Company has reached a settlement agreement related to the global plaintiff's Pacific Fertility Clinic lawsuits and has recognized the impact in discontinued operations in connection with these settlements.

Segments, Applications and Products

Our reportable segments, which are also our operating segments, are currently as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing.

Our Cryo Tank Solutions segment, which has principal operations in the United States, Europe and Asia, serves geographic regions around the globe, supplying bulk, microbulk and mobile equipment used in the storage, distribution, vaporization, and application of industrial gases and certain hydrocarbons. Our Heat Transfer Systems segment, with principal operations in the United States and Europe, also serves geographic regions globally, supplying mission critical engineered equipment and systems used in the separation, liquefaction, and purification of hydrocarbon and industrial gases that span gas-to-liquid applications. Operating globally, our Specialty Products segment supplies products used in specialty end-market applications including hydrogen, LNG, biofuels, CO2 Capture, carbon capture, food and beverage, aerospace, lasers cannabis and water treatment, among others. Our Heat Transfer Systems, Specialty Products and Cryo Tank Solutions segments also include products from the Howden Acquisition such as compressors, blowers and fans, rotary heaters and steam turbines. Our Repair, Service & Leasing segment provides installation, service, repair, maintenance, and refurbishment of cryogenic products globally in addition to providing equipment leasing solutions. All prior period amounts solutions as well as expanded aftermarket products, services and service locations related to the Howden Acquisition.

presented have been reclassified based on our current reportable segments.

Further information about these segments is located in Note 4, "Segment and Geographic Information," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Cryo Tank Solutions

Cryo Tank Solutions 31% (19.0% of consolidated sales for the year ended December 31, 2022 December 31, 2023) designs and manufactures cryogenic solutions for the storage and delivery of cryogenic liquids used in industrial gas and LNG applications. With operations in the United States, Latin America, Europe and Asia, our Cryo Tank Solutions segment serves customers globally.

Industrial Gas Applications

We design and manufacture bulk and packaged gas cryogenic solutions for the storage, distribution, vaporization, and application of industrial gases. Our products span the entire spectrum of industrial gas demand from small customers requiring cryogenic packaged gases to large users requiring custom engineered cryogenic storage systems in both mobile and stationary applications. Using sophisticated vacuum insulation technology, our cryogenic storage systems are able to store and transport liquefied industrial gases and hydrocarbon gases at temperatures from 0° Fahrenheit to temperatures nearing absolute zero. Industrial gas applications include any end-use of the major elements of air (nitrogen, oxygen, and argon), including manufacturing, welding, electronics and medical. Principal customers for industrial applications are global industrial gas producers and distributors. Other end-users of our equipment include chemical producers, manufacturers of electrical components, health care organizations and companies in the oil and natural gas industries.

Demand for industrial gas applications is driven primarily by the significant installed base of users of **cryogenic liquids, molecules**, as well as new applications and distribution technologies for cryogenic liquids. Our competitors tend to be regionally focused while we supply a broad range of systems on a worldwide basis. We also compete with several suppliers owned by the global industrial gas producers and in some cases they are also our customer. From a technology perspective, we compete with compressed gas alternatives or on-site generated gas supply.

LNG Applications

We supply cryogenic solutions for the storage, distribution, regasification, and use of LNG. LNG may be utilized as an alternative to other fossil fuels such as diesel, propane, or fuel oil in transportation or off pipeline applications. Examples include transit bus transportation, locomotive propulsion, marine, and power generation in remote areas. We refer to our LNG distribution products as a "Virtual Pipeline," as the traditional natural gas pipeline is replaced with cryogenic distribution to deliver the gas to the end-user. We supply cryogenic trailers, ISO containers, bulk storage tanks, loading facilities, and regasification equipment specially configured for delivering LNG into Virtual Pipeline applications. We sell LNG applications around the world from various Eastern and Western Hemisphere facilities to numerous end-users, energy companies, and gas distributors. Additionally, we supply large vacuum insulated storage tanks as equipment for purchasers of standard liquefaction plants sold by our Heat Transfer Systems segment.

Demand for LNG applications is driven by diesel displacement initiatives, environmental and energy security considerations, and the associated cost of equipment. Our competitors tend to be regionally focused or product-specific, while we supply a broad range of solutions required by LNG applications.

Heat Transfer Systems

Heat Transfer Systems **(29% (26.4% of consolidated sales for the year ended December 31, 2022 December 31, 2023))** facilitates major natural gas, petrochemical processing, petroleum refining, power generation and industrial gas companies in the production or processing of their products. With primary manufacturing capabilities in the **U.S. United States** and Europe, Heat Transfer Systems serves customers globally. This segment supplies mission critical engineered equipment and technology-driven process systems used in the separation, liquefaction, and purification of hydrocarbon and industrial gases that span most gas-to-liquid applications.

Natural Gas Processing (including Petrochemical) Applications

We provide natural gas processing solutions that facilitate the progressive cooling and liquefaction of hydrocarbon mixtures for the subsequent recovery or purification of component gases. Primary products used in these applications include brazed aluminum heat exchangers, cold boxes, pressure vessels, Core-in-Kettle® and air cooled heat exchangers. Our brazed aluminum heat exchangers allow producers to obtain purified hydrocarbon by-products, such as methane, ethane, propane, and ethylene, which are commercially marketable for various industrial or residential uses. Our cold boxes are highly engineered systems that incorporate brazed aluminum heat exchangers, pressure vessels, and interconnecting piping used to significantly reduce the temperature of gas mixtures to liquefy component gases so that they can be separated and purified for further use in multiple energy, industrial, scientific, and commercial applications. Chart's air cooled heat exchangers are used to cool or condense fluids to allow for further processing and for cooling gas compression equipment. Our process technology includes standard and modular plant solutions and comprises detailed mechanical design, Chart manufactured proprietary equipment and all other plant items required to liquefy pipeline quality natural gas. Customers for our natural gas processing applications include large companies in the hydrocarbon processing industry, as well as engineering, procurement and construction ("EPC") contractors.

Demand for these applications is primarily driven by the growth in the natural gas liquids (or NGLs) separation and other natural gas segments of the hydrocarbon processing industries, including LNG. In the future, management believes that continuing efforts by petroleum producing countries to better utilize stranded natural gas and associated gases which historically had been flared, present a promising source of demand. We have several competitors for our heat exchangers and fans, including many smaller fabrication-only facilities around the world. Competition with respect to our more specialized brazed aluminum heat exchangers includes a small number of global (European and Asian) manufacturers.

LNG Applications

We provide process technology, liquefaction capabilities, and independent mission critical equipment for the liquefaction of natural gas (LNG), including small to mid-scale facilities, floating LNG applications, and large base-load export facilities. We are a leading supplier to EPC firms where we provide equipment and process technology, providing an integrated and optimized approach to the project. These "Concept-to-Reality" process systems incorporate many of Chart's core products, including brazed aluminum heat exchangers, Core-in-Kettle® heat exchangers, cold boxes, air cooled heat exchangers, pressure vessels, and pipe work. These systems are used in global LNG projects, for both local LNG production as well as LNG export terminals. Our proprietary IPSMR® (Integrated Pre-cooled Single Mixed Refrigerant) and IPSMR+® liquefaction process technology offers lower capital expenditure requirements than competing processes measured on a per ton of LNG produced basis, along with very competitive operating costs.

Demand for LNG applications is primarily driven by increased use and global trade in natural gas (transported as LNG) since natural gas offers significant cost and environmental advantages over other fossil fuels. Demand for LNG for fuel applications is also driven by diesel displacement and continuing efforts by petroleum producing countries to better utilize stranded natural gas and previously flared gases. We have several competitors for these applications, including leading industrial gas companies, other brazed aluminum heat exchanger manufacturers, and other equipment fabricators to whom we also act as a supplier of equipment, including heat exchangers and cold boxes.

HVAC, Power and Refining Applications

Our air cooled heat exchangers and axial cooling fans are used in HVAC, power and refining applications. Demand for HVAC is driven by growing construction activities and demand for energy efficient devices, and there is also positive impact from growing industrial production. Refining demand continues to be driven by United States shale production, benefiting from low cost shale oil, natural gas liquids and gas resulting in high utilization and increased investment. Our air cooled heat exchangers are used in each phase of the refining process to condense and cool gases and fluids. Worldwide power use is projected to grow 50% through 2050. This growth is focused in regions where strong economic growth is driving demand, particularly in Asia.

Specialty Products

Specialty Products **(28% (24.2% of consolidated sales for the year ended December 31, 2022 December 31, 2023))** supplies highly-engineered equipment and process technologies used in specialty end-market applications for hydrogen, LNG, biofuels, **CO2 Capture, carbon capture**, food and beverage, aerospace, **space exploration**, lasers, **cannabis helium** and water treatment, among others. Leveraging our global manufacturing presence, Specialty Products serves customers globally. We have made a number of acquisitions over the past three years to capitalize on clean power, clean industrials, clean water and clean food, beverages and agriculture market opportunities within this segment. These include the acquisitions of **Howden**, BlueInGreen, LLC, Sustainable Energy Solutions, Inc., Cryogenic Gas Technologies, Inc., L.A. Turbine, AdEdge Holdings, LLC and Earthly Labs Inc.

We supply a wide range of solutions used in the production, storage, distribution and end-use of hydrogen, while including liquefaction technology and equipment and compression equipment. We also providing provide highly-specialized mobility and transportation equipment for use with both hydrogen and LNG, including onboard vehicle tanks and fueling stations. More specifically, our horizontal LNG vehicle tanks are widely used onboard heavy-duty trucks and buses while our recently-released liquid hydrogen vehicle tank enjoys many of the same characteristics. Chart also manufactures specialized cryogenic railcars used to transport not only LNG, but a number of other gaseous and liquid molecules. Additionally, we design and manufacture nitrogen dosing products and other equipment used in packaging as well as the food and beverage industry. These applications include processing, preservation and beverage carbonation.

Our water treatment technology is also offered through the Specialty Products segment. Serving both municipal and industrial end markets globally, our water treatment process technology utilizes Chart's cryogenic storage and vaporization equipment to efficiently deliver dissolved oxygen, CO₂ carbon dioxide and ozone into water. Our technology is used for oxygenation, pH adjustment, oxidation and odor control with modular and mobile solution options. Additional water treatment capabilities include but are not limited to adsorption, filtration, ion exchange, reverse osmosis and flow reversal processes, to name a few. Our expanded solution set effectively addresses a wide range of organic and inorganic contaminants including arsenic and per- and polyfluorinated alkylated substances (PFAS), often referred to as "forever chemicals." Other equipment and technology offered through Specialty Products have applications in CO₂ Capture, carbon capture and space and cannabis industries. We also offer cryogenic components, including turboexpanders, vacuum insulated pipe ("VIP"), specialty liquid nitrogen, or LN₂, end-use equipment and cryogenic flow meters.

We design and manufacture solutions for the liquefaction, storage, distribution, regasification and use of hydrogen, hydrogen as both a liquid and a gas. We have over 57 years of experience in manufacturing hydrogen-related equipment. There are a number of commercial uses for hydrogen including applications in the chemical, refining and space industries. More recently, hydrogen is increasingly being used as an alternative fuel for the power transportation sectors, with both onshore and marine applications. Given the global movement towards a lower carbon footprint, there are also a number of other potential uses for hydrogen on the horizon including power generation. To help enable this transition, we supply ISO containers and transport trailers for both gaseous and liquid hydrogen, in addition to fuel stations and other fueling solutions. We also manufacture various types of heat exchangers for hydrogen applications including brazed aluminum, air-cooled air cooled and shell & tube varieties.

Howden Ventsim™ DESIGN is the world's bestselling mine ventilation software, used and trusted by over 2,500 mines, universities, consultants, government and research organizations. Ventsim™ DESIGN is a complete integrated mine and tunnel ventilation software package for the design and testing of ventilation circuits including airflow, pressure, heat, gases, power, radon, fire and many other types of ventilation information. Ventsim™ CONTROL utilizes intelligent software connected to hardware devices to remotely monitor, control and automate airflow, heating and cooling to deliver safer, more productive and lower cost ventilation for mines.

Demand for many of our specialty applications including hydrogen is primarily driven by the global, public and private sector movement towards a lower-carbon footprint, reduced greenhouse gas emissions and overall sustainability trends. These efforts are being guided not only by government policies and related global climate goals, but also by social and environmental actions by various stakeholders. Management believes hydrogen in particular will play an ever-increasing role in the energy transition, given its zero emission characteristics and naturally abundant supply. Similarly, management believes other equipment offered by Chart's Specialty Products segment will be required to achieve global greenhouse gas reduction targets and other environmental-related goals, including our carbon capture and biofuel technology, water treatment offerings and specialty packaging equipment. Demand for LNG is also likely to continue benefiting from the ongoing energy transition given its environmental advantages over other fossil fuels. While we have competitors in a portion of these applications, many of our specialty product markets have limited competition.

Repair, Service & Leasing

Our Repair, Service & Leasing segment (12% (30.4% of consolidated sales for the year ended December 31, 2022 December 31, 2023) provides installation, service, repair, maintenance, and refurbishment of our products globally in addition to providing equipment leasing solutions. With primary operations in the United States and Europe, our Repair, Service & Leasing segment serves customers globally. We have made a number of acquisitions over the years to expand our global footprint including Howden, CSC Cryogenic Service Center AB, Skaff, LLC and VCT Vogel GmbH.

To support the products and solutions we sell, our Repair, Service & Leasing segment offers services through the entire lifecycle of our products, which is unique and unparalleled in the markets we serve. Our focus is to build relationships with plant stakeholders, from process and mechanical engineers to operations and maintenance personnel, focusing on the optimized performance and lifespan of Chart proprietary equipment. Aftermarket services include extended warranties, plant start-up, parts, 24/7 support, monitoring and process optimization, as well as repair, maintenance, and upgrades. We perform plant services on equipment, including brazed aluminum heat exchangers, cold boxes, etc.

We also install, service, maintain and refurbish bulk and packaged gas cryogenic solutions for the storage, distribution, vaporization, and application of industrial gases. With multiple service locations in the Americas, Europe and Asia, we not only service Chart products, we also service numerous other manufacturers including many of our competitors. We provide services for storage vessels, VIP, reconfiguration, relocation, trailers, ISO containers, vaporizers, and other gas to liquid equipment.

Additionally, we offer a variety of leasing options on certain types of Chart equipment, providing our customers with the flexibility to quickly respond to seasonal or sudden increases in demand with similar flexibility when existing equipment is being repaired or refurbished. We offer short and long-term operating leases as well as lease to own options with up to a ten-year term. Typical equipment we offer with leasing options are standard trailers, bulk and micro bulk storage systems, vaporizers and delivery tankers. Chart also offers Treatment-as-a-Service options for water treatment customers in addition to remote monitoring services.

The Howden Acquisition expanded our offerings in the areas of spare parts, retrofits, service and software. Howden Uptime is a digital platform that seamlessly integrates data related to rotating equipment's performance. The system combines active inputs, such as temperature, pressure and vibration, with reference parameters from manuals, specifications and maintenance reports. When the data is analyzed, it provides a unique foundation for maintaining and enhancing operational excellence.

Demand for services provided by this segment is being driven by our substantial existing and growing install base, exceptional reputation for high-quality service, breadth of services offered and expanded geographic footprint. Additionally, this segment is benefiting from new long-term agreements being executed that incorporate parts, repair and aftermarket service components not included in prior agreements. Our competitors tend to be regionally focused while we supply a broader array of services on a worldwide basis.

Engineering and Product Development

Our engineering and product development activities are focused primarily on developing new and improved technologies, solutions and equipment for the users of cryogenic liquids, molecules, hydrocarbons and industrial gases across all industries served. Our engineering, technical, and marketing commercial employees actively assist customers in specifying their needs and in determining appropriate products to meet those needs. Portions of our engineering expenditures typically are charged to customers, either as separate items or as components of product cost.

Competition

We believe we can compete effectively around the world and that we are a leading competitor in the industries we serve. Competition is based primarily on performance and the ability to provide the design, engineering, and manufacturing capabilities required in a timely and cost-efficient manner. Contracts are usually awarded on a competitive bid basis. Quality, technical expertise, and timeliness of delivery are the principal competitive factors within the industries we serve. Price and terms of sale are also important competitive factors. Although we believe we rank among the leaders in each of the markets we serve and because our equipment is specialized and independent third-party prepared market share data is not available, it is difficult to know for certain our exact position in our markets. We base our statements about industry and market positions on our reviews of annual reports and published investor presentations of our competitors and augment this data with information received by marketing consultants conducting competition interviews and our sales force and field contacts. For information concerning competition within a specific segment of our business, see the descriptions provided under segment captions in this Annual Report on Form 10-K.

Marketing

We market our products and services in each of our segments throughout the world primarily through direct sales personnel and independent sales representatives as well as distributors. The technical and custom design nature of our products requires a professional, highly trained sales force. We use independent sales representatives and distributors to market our products and services in certain foreign countries and in certain North American regions. These independent sales representatives supplement our direct sales force in dealing with language and cultural matters. Our domestic and foreign independent sales representatives earn commissions on sales, which vary by product type.

Backlog

For information about our backlog, including backlog by business segment, see Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Customers

We sell our products primarily to gas producers, distributors, and end-users across energy, industrial, power, HVAC and refining applications in countries throughout the world. We capture clean power, clean water, clean food and clean industrials as our unique offering for the Nexus of Clean™. Sales to our top ten customers accounted for 38%25%, 39%38%, and 42%39% of consolidated sales in 2023, 2022 and 2021, and 2020, respectively.

Our sales to particular customers fluctuate from period to period, but the global producers and distributors of hydrocarbon and industrial gases as well as their suppliers tend to be a consistently large source of revenue for us. Our supply contracts are generally contracts for "requirements" only. Also, generally our contracts may be canceled at any time, subject to possible cancellation charges. To minimize credit risk from trade receivables, we review the financial condition of potential customers in relation to established credit requirements before sales credit is extended and we monitor the financial condition of customers to help ensure timely collections and to minimize losses. In addition, for certain domestic and foreign customers, we require advance payments, letters of credit, bankers' acceptances, and other such guarantees of payment. Certain customers also require us to issue letters of credit or performance bonds, particularly in instances where advance payments are involved, as a condition to placing the order. We believe our relationships with our customers are generally good.

Intellectual Property

Although we have a number of patents, trademarks, and licenses related to our business, no one of them or related group of them is considered by us to be of such importance that its expiration or termination would have a material adverse effect on our business. In general, we depend upon technological capabilities, manufacturing quality control, and application of know-how, rather than patents or other proprietary rights, in the conduct of our business.

Raw Materials and Suppliers

We manufacture most of the products we sell. The raw materials used in manufacturing include aluminum products (including sheets, bars, plate, and piping), stainless steel products (including sheets, plates, heads, and piping), palladium oxide, carbon steel products (including sheets, plates, and heads), valves and gauges, and fabricated metal components. Most raw materials are available from multiple sources of supply, although shortages and delays to certain materials have been experienced during the past year, three years, as a result of market disruptions caused by macroeconomic conditions such as inflation and supply chain disruptions. We have long-term relationships with our raw material suppliers and other vendors. Commodity components of our raw material (aluminum, stainless steel and carbon steel) could experience additional levels of volatility during 2023 2024 and may have a relational impact on raw material pricing. Subject to certain short-term risks related to our suppliers as discussed under Item 1A. "Risk Factors," we foresee no acute shortages of any raw materials that would have a material adverse effect on our operations.

Human Capital Resources

As of January 31, 2023 January 31, 2024, we had 5,178 11,637 employees, including 2,790 3,717 domestic employees and 2,388 7,920 international employees.

We are party to one collective bargaining agreement with the International Association of Machinists and Aerospace Workers ("IAM") covering 279 350 employees at our La Crosse, Wisconsin heat exchanger facility. Effective February 8, 2021 February 7, 2021, we entered into a five-year agreement with the IAM which expires on February 8, 2026 February 6, 2026. Certain international employees are part of trade unions or work councils across Europe, the Americas, Asia and Africa. We have proactive engagement and believe we have positive relations with our employees, including those represented by trade unions and work councils. We have had no material work stoppages.

Chart is committed to attracting and retaining the best talent. Therefore, investing, developing, and maintaining human capital is critical to our success. As a global manufacturing company, a meaningful number of our employees are engineers or trained trade or technical workers focusing on advanced manufacturing. Chart prioritizes several measures and objectives in managing its human capital assets, including, among others, employee safety and wellness, talent acquisition and retention, employee engagement, development, and training, diversity and inclusion, and compensation and pay equity. In 2022, 2023, we did not experience any employee-generated work stoppages or disruptions, and we consider our employee relations to be satisfactory.

Our key human capital measures include employee safety, turnover, absenteeism, recruitment and production, productivity. We frequently benchmark our compensation practices and benefits programs against those of comparable industries and in the geographic areas where our facilities are located. We believe that our compensation and

employee benefits are competitive and allow us to attract and retain skilled and unskilled labor throughout our organization. Our notable health, welfare and retirement benefits include company-subsidized health insurance, 401(k) plan with company matching contributions, tuition assistance program and paid time off.

Covid-19 and Employee Safety and Wellness

During the coronavirus (Covid-19) pandemic and as always, the safety and well-being of our employees and their families has been a top priority as we continue to serve our customers, many of which are directly involved in essential manufacturing and critical medical care. Our global pandemic efforts have included leveraging the advice and recommendations of infectious disease experts and recognized organizations to establish appropriate safety standards and secure appropriate levels of personal protective equipment for our workforce. Based upon these recommendations, we have adopted and implemented a Covid-19 Response Plan to outline our company policies and procedures designed to mitigate the potential for transmission of Covid-19 and its variants and prevent exposure to illness from certain other infectious diseases. These protocols, which remain in place, meet or exceed the Centers for Disease Control guidelines and where applicable, state and local government mandates. Our employees were trained on these protocols and on an ongoing basis, receive regular updates as rules and guidelines evolve, and as recommended responses to the pandemic have also been modified.

Among other things, Chart's Covid-19 Response Plan details employee, manager, and company responsibilities related to house-keeping and sanitization, hygiene and respiratory etiquette, use of personal protective equipment, employee and visitor screening procedures, leave policies and accommodations, travel guidelines, remote working opportunities and infrastructure, and protocols for not reporting to work and/or when to return to work upon potential and/or confirmed Covid-19 exposure or infection. In addition to procuring and maintaining personal protective equipment, screening stations and other preventative resources, we also leveraged our technology and human capital to accommodate the heightened level of demand for critical care equipment required by customers around the world to fight Covid-19.

customers. Chart has ongoing communications about safety performance at all levels of the organization. Our head of global environmental, health and safety (EHS) coordinates all EHS matters with our sites, regularly updates our executive staff on our

EHS matters and coordinates with our Global Safety Council, which meets monthly to discuss accidents, injuries, near misses, trends and lessons learned. Council members or executive management present metrics and other safety information at every executive staff and Board of Directors meeting. The cross-functional Global Safety Council is dedicated to reaching our target of zero accidents. All Chart employees have Stop Work Authority and are expected to use it if there is concern that any task or procedure could be unsafe. Each site recognizes and rewards employees based on local and global objectives such as achieving safety performance milestones and completing regular audits. All Chart sites implement our Occupational Health and Safety Program Requirements for training, reporting, accident investigation, auditing, implementation, and compliance. The policy encourages employee involvement, a crucial element of a successful safety program, by requiring each site to create a safety committee and safety suggestion program.

Employee Engagement, Development and Training

Chart strives to recruit, hire, develop and promote a diverse workforce. It is our goal to provide each employee a challenging and rewarding experience that allows for personal and professional development. We encourage and support the growth and development of our employees and, wherever possible, seek to fill positions by promotion and transfer from within the organization. We advance continual learning and career development through ongoing performance and development conversations or evaluations with employees, internally and externally developed training programs, and educational reimbursement programs. In connection with the latter, reimbursement is available to employees enrolled in pre-approved degree or certification programs at accredited institutions that teach skills or knowledge relative to our business or otherwise to the development of the employee's skill set or knowledge base. In addition, we routinely invest in seminar, conference and other training or continuing education events for our employees. We believe education empowers our people to identify and adopt best practices that will enhance our sustainability. Our university relations program includes recruitment, co-operative programs and internships. To train a local workforce, our manufacturing facilities forge relationships with community colleges and trade schools and pay their employees based on the job and level of skill.

Other examples of Chart employee development programs include our Emerging Leaders program, Welding Council, Rotational Engineering program, and Engineering Fellows, and Key Experts program, and Operations Leaders Program, in addition to the aforementioned Global Safety Council. Chart's Emerging Leaders accelerated development program assigns immersive, high-impact projects to high-potential employees across the organization to prepare them for advancement to executive roles. Engineering Fellows are long-tenured employees who are recognized externally and internally as having contributed to our success in unique ways while our Key Experts are widely recognized within Chart for their engineering expertise and contributions to the field. Together, Fellows and Key Experts manage the rotational engineering program to mentor and develop our early-career engineers. Our

We have several employee resource groups including our Network of Women employee resource group was and Chart Pride, which were started to help create a more equitable workplace and offer career advancement opportunities for women across Chart. Chart has also partnered with Historically Black Colleges and Universities (HBCUs) to drive a more diverse and inclusive workforce. Our Chief Executive Officer and President, Jillian Evanko, has also signed the CEO Action for Diversity & Inclusion™ pledge, and our Global Diversity & Inclusion Committee is working with our 5,178 11,637 team members to ensure all of our key themes and priorities work seamlessly together in our culture for the best employee experience.

We strive to maintain an inclusive environment free from discrimination of any kind, including sexual or other discriminatory harassment. All employees are expected to put into practice follow our Code of Ethics, related policies, laws, rules and regulations in all countries where we operate. In addition, employees have a duty to report violations and have multiple avenues available through which inappropriate behavior can be reported, such as supervisors, managers, ethics representatives or the confidential, anonymous Chart Ethics Hotline. Designated ethics representatives are always available for employees who have questions or need guidance on compliance. All reports of inappropriate behavior are promptly investigated with appropriate action taken to stop such behavior. Chart investigates alleged incidents and communicates the resolution to the person who reported it. We prohibit retaliation and threats of retaliation against anyone who reports a possible violation or misconduct in good faith and protect employees with our Whistleblower Policy.

Environmental Matters

We monitor and review our procedures and policies for compliance with environmental laws and regulations. Our management is familiar with these regulations and supports an ongoing program to maintain our adherence to required standards. Our operations have historically included and currently include the handling and use of hazardous and other regulated substances, such as various cleaning fluids used to remove grease from metal that are subject to federal, state, local,

and foreign environmental laws and regulations. These regulations impose limitations on the discharge of pollutants into the soil, air, and water and establish standards for their handling, management, use, storage, and disposal.

We are involved with environmental compliance, investigation, monitoring, and remediation activities at certain of our owned or formerly owned manufacturing facilities and at one owned facility that is leased to a third party. We believe that we are currently in substantial compliance with all known environmental regulations. We accrue for certain environmental remediation-related activities for which commitments or remediation plans have been developed or for which costs can be reasonably estimated. These estimates are determined based upon currently available facts regarding each facility. Actual costs incurred may vary from these estimates due to the inherent uncertainties involved. Future expenditures relating to these environmental remediation efforts are expected to be made over the coming years as ongoing costs of remediation programs. We do not believe that these regulatory requirements have had a material effect upon our capital expenditures, earnings, or competitive position. We are not anticipating any material capital expenditures in 2023 2024 relating to our existing business that are directly related to regulatory compliance matters. Although we believe we have adequately provided for the cost of all known environmental conditions, additional contamination, the outcome of disputed matters, or changes in regulatory posture could result in more costly remediation measures than budgeted, or those we believe are adequate or required by existing law. We believe that any additional liability in excess of amounts accrued which may result from the resolution of such matters will not have a material adverse effect on our financial position, liquidity, cash flows, or results of operations.

Available Information

Additional information about the Company is available at www.chartindustries.com. On the Investor Relations page of the website, the public may obtain free copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable following the time that they are filed with, or furnished to, the Securities and Exchange Commission ("SEC"). Additionally, we have posted our Code of Ethical Business Conduct and Officer Code of Ethics on our website, which are also available free of charge to any shareholder interested in obtaining a copy. References to our website do not constitute incorporation by reference of the information contained on such website, and such information is not part of this Form 10-K.

Item 1A. Risk Factors

Investing in our common stock involves risk. You should carefully consider the risks described below, as well as the other information contained in this Annual Report on Form 10-K in evaluating your investment in us. If any of the following risks actually occur, our business, financial condition, operating results, or cash flows could be harmed materially. Additional risks, uncertainties, and other factors that are not currently known to us or that we believe are not currently material may also adversely affect our business, financial condition, operating results or cash flows. In any of these cases, you may lose all or part of your investment in us.

Risks Related to Our Business

The markets we serve are subject to cyclical demand (which we have managed to balance through diversification of our products and offerings) and vulnerable to economic downturn, which could harm our business and make it difficult to project long-term performance.

Demand for our products depends in large part to a significant extent upon the level of capital and maintenance expenditures by many of our customers and end-users, in particular those customers in the global hydrocarbon and industrial gas markets. These customers' expenditures historically have been cyclical in nature and vulnerable to economic downturns. Decreased capital and maintenance spending by these customers could have a material adverse effect on the demand for our products and our business, financial condition, and results of operations. In addition, this historically cyclical demand limits our ability to make accurate long-term predictions about the performance of our company.

The loss of, or significant reduction or delay in, purchases by our largest customers could reduce our sales and profitability.

While we sell to more than 2,500 7,000 customers, sales to our top ten customers accounted for 38% 25%, 39% 38%, and 42% 39% of consolidated sales in 2023, 2022 and 2021, and 2020, respectively. We expect that a similar number of customers will continue to represent a substantial portion of our sales for the foreseeable future. While our sales to particular customers fluctuate from period to period, sales to large customers, including the global producers, distributors and users of energy and industrial gases and their suppliers, tend to be a consistently large source of our sales.

The loss of any of our major customers, consolidation of our customers, or a decrease or delay in orders or anticipated spending by such customers could materially reduce our sales and profitability. Although order activity in 2022 2023 increased year over year, we continued to experience energy price volatility and our customers' adjusted project timing. Delays in the anticipated timing of LNG infrastructure build out could materially reduce the demand for our products.

We may fail to successfully integrate companies that provide complementary products or technologies.

An important component of our recent business strategy has been the acquisition of businesses that complement our existing products and services. Such a strategy involves the potential risks inherent in assessing the value, strengths, weaknesses, contingent or other liabilities, and potential profitability of acquisition candidates and in integrating the operations of acquired companies. In addition, any acquisitions of businesses with foreign operations or sales may increase our exposure to risks inherent in doing business outside the United States.

As part of this acquisition strategy, we have closed on several acquisitions in the past three years including the Howden Acquisition. These acquisitions in new clean energy markets, such as hydrogen, water, carbon and direct air capture and we expect to close on the acquisition of Howden in late first quarter or early second quarter. These high growth markets represent included new businesses that are complementary to our existing LNG and gas technologies. The failure to achieve the anticipated cost savings or commercial synergies of our recent significant acquisitions or recognize the anticipated market opportunities or integration from our new clean energy acquisitions including our pending acquisition of Howden, could have a material adverse effect on our business, financial condition, and results of operations. Our ability to realize the expected cost savings such as in the pending Howden acquisition, and commercial synergies depend on factors beyond our control, such as operating difficulties, increased operating costs, competitors and customers, delays in implementing initiatives and general economic or industry conditions. We will may be required to make significant cash expenditures to achieve such cost savings and commercial synergies and we cannot be assured that these expenditures will not be higher than anticipated. Furthermore, there can be no assurances that such cost savings measures will not cause disruptions or other negative impacts to our operations, business or revenues.

From time to time, There can be no assurances that these acquisitions, including Howden, will be successful or that we will realize the expected benefits currently anticipated. For example, we may not be able to maintain the levels of revenue, earnings or operating efficiency that we and Howden have acquisition discussions achieved or might have achieved separately. The business and financial performance of us and Howden are subject to certain risks and uncertainties, including the risk of the loss of, or changes to, our and its relationships with other potential target companies both domestically customers. We may be unable to achieve the same growth, revenues and internationally profitability that we

and expect a net near term large acquisition with the pending acquisition of Howden. In the event we pursued a large acquisition opportunity Howden have achieved in the future and we proceed, a substantial portion of our cash and surplus borrowing capacity could be used for the acquisition or we may seek additional debt or equity financing. past.

Potential acquisition opportunities become available to us from time to time, and we periodically engage in discussions or negotiations relating to potential acquisitions, including acquisitions that may be material in size or scope to our business. Any acquisition may or may not occur and, if an acquisition does occur, it may not be successful in enhancing our business for one or more of the following reasons:

- Any business acquired may not be integrated successfully and may not prove profitable;
- The price we pay for any business acquired may overstate the value of that business or otherwise be too high;
- Liabilities and obligations we take on through the acquisition may prove to be higher than we expected;
- We may fail to achieve acquisition synergies;
- The focus on the integration of operations of acquired entities may divert management's attention from the day-to-day operation of our businesses; and/or
- The Acquisition and combined business may not be successfully received by our customers, business partners, suppliers and employees.

Inherent in any future acquisition is the risk of transitioning company cultures and facilities and the corresponding risk of management and employee turnover. The failure to efficiently and effectively achieve such transitions could increase our costs and decrease our profitability. business.

If we are unable to successfully control our costs and efficiently manage our operations, it may place a significant strain on our management and administrative resources and lead to increased costs and reduced profitability.

We have implemented cost savings initiatives to align our business with current and expected economic conditions. Our ability to operate our business successfully and implement our strategies depends, in part, on our ability to allocate our resources optimally in each of our facilities in order to maintain efficient operations. Ineffective management could cause manufacturing inefficiencies, increase our operating costs, place significant strain on our management and administrative resources, and prevent us from being able to take advantage of opportunities as economic conditions improve. If we are unable to align our cost structure in response to prevailing economic conditions on a timely basis, or if implementation or failure to implement any cost structure adjustments has an adverse impact on our business or prospects, then our financial condition, results of operations, and cash flows may be negatively affected.

Similarly, it is critical that we appropriately manage our planned capital expenditures in this uncertain economic environment. For example, we have invested or plan to invest approximately \$60 to \$65 million in new capital expenditures in 2023 relating to our existing business. expenditures. If we fail to manage the projects related to these capital expenditures in an effective and timely manner, we may lose the opportunity to obtain some new customer orders or the ability to operate our businesses business efficiently. Even if we effectively implement these the projects, the orders needed to support the capital expenditure expenditures or increased capacity may not be obtained, may be delayed, or may be less than expected, which may result in sales or profitability at lower levels than anticipated. expected.

Our results of operations could materially suffer if we are unable to obtain sufficient pricing for our products and services to meet our profitability expectations.

If we are unable to obtain favorable pricing for our products and services in a timely manner, our revenues and profitability could materially suffer. For example, current conditions in our supply chain have resulted in rapid increases in the prices for the raw materials we use. Furthermore, the prices we are able to charge for our products and services are affected by a number of other factors, including:

- general economic and political conditions;
- our customers' desire to reduce their costs;
- the competitive environment;
- our ability to accurately estimate our costs, including our ability to estimate the impact of inflation on our costs over long-term contracts; and
- the procurement practices of our customers.

Our inability to pass increased prices along to our customers in a timely manner could have a material adverse effect on our business, financial condition or results of operations.

We depend on the availability of certain key suppliers; if we experience difficulty with a supplier, we may have difficulty finding alternative sources of supply.

The cost, quality, and availability of raw materials, certain specialty metals and specialized components used to manufacture our products are critical to our success. The materials and components we use to manufacture our products are sometimes custom made and may be available available only from a few suppliers, and the lead times required to obtain these materials and components can often be significant. We rely on a limited number of suppliers for some of these materials, including special grades of aluminum used in our brazed aluminum heat exchangers and compressors included in some of our product offerings. While we have not historically encountered problems with availability, and our global sourcing team has mitigated these risks by increasing inventory for some of these materials, this does not mean that we will continue to have timely access to adequate supplies of essential materials and components in the future or that supplies of these materials and components will be available on satisfactory terms when needed. If our vendors for these materials materials and components are unable to meet our requirements, fail to make shipments in a timely manner, or ship defective materials or components, we could experience a shortage or delay in supply or fail to meet our contractual requirements, which would adversely affect our results of operations and negatively impact our cash flow and profitability.

We carry goodwill and indefinite-lived intangible assets on our balance sheet, which are subject to impairment testing and could subject us to significant non-cash charges to earnings in the future if impairment occurs.

As of December 31, 2022 December 31, 2023, we had goodwill and indefinite-lived intangible assets of \$1,148.4 million \$3,516.9 million, which represented approximately 19.5% 38.6% of our total assets. Goodwill and indefinite-lived intangible assets are not amortized but are tested for impairment annually in the fourth quarter or more often if events or changes in circumstances indicate a potential impairment may exist. Factors that could indicate that our goodwill or indefinite-lived intangible assets are impaired include a decline in our stock price and market capitalization, lower than projected operating results and cash flows, and slower growth rates in our industry. Our stock price historically has

shown volatility and often fluctuates significantly in response to market and other factors. Declines in our stock price, lower operating results and any decline in industry conditions in the future could increase the risk of impairment. Impairment testing incorporates our estimates of future operating results and cash flows, estimates of allocations of certain assets and cash flows among reporting segments, estimates of future growth rates, and our judgment regarding the applicable discount rates used on estimated operating results and cash flows. As a result of the above analyses, we recorded an impairment charge related to indefinite-lived intangible assets of \$16.0 million during the fourth quarter of 2020. If we determine at a future time that further an impairment exists, it may result in a significant non-cash charge to earnings and lower stockholders' equity.

The Covid-19 pandemic may disrupt A public health crisis could cause disruptions to our operations and which could adversely affect our business in the future.

While A significant public health crisis could cause disruptions to our operations similar to the effects of the Covid-19 pandemic has not had a material pandemic. It affected our business due to the impact on the global economy, including its effects on transportation networks, raw material availability, production efforts and customer demand for our business or operations to date, the ongoing impact of the pandemic could have a negative effect on our business, results of operations, cash flows and financial condition in the future. The Covid-19 pandemic may affect our business, including as a result of temporary facility closures, work-from-home orders and policies, absenteeism in our facilities, inability to efficiently transport our goods, social distancing and other health and safety protocols and reduced customer demand. The Covid-19 pandemic could impact the timing of our operational improvement efforts by limiting our products. Our ability to implement planned improvements at several of our facilities. The Covid-19 pandemic could adversely impact our ability predict and respond to secure materials for our products or supplies for our facilities or to provide personal protective equipment for our employees, any of which could adversely affect our operations. future changes resulting from a potential health crisis is uncertain. Even after the Covid-19 pandemic a public health crisis subsides, there may be long-term effects on our business practices and customers in economies in which we operate that could severely disrupt our operations and could have a material adverse effect on our business, results of operations, cash flows and financial condition. Any or all of these risks could be increased or intensified if there is a resurgence of the Covid-19 virus and its variants after the initial outbreaks subside. As we cannot predict the duration, scope or severity of the Covid-19 pandemic, which continues to develop and change rapidly, the negative financial impact to our results cannot be reasonably estimated, but could be material.

Our backlog is subject to modification, termination or reduction of orders, which could negatively impact our sales.

Our backlog is comprised of the portion of firm signed purchase orders or other written contractual commitments received from customers that we have not recognized as sales. The dollar amount of backlog as of December 31, 2022 December 31, 2023 was \$2,338.1 million \$4,278.8 million. Our backlog can be significantly affected by the timing of orders for large projects, and the amount of our backlog at December 31, 2022 December 31, 2023 is not necessarily indicative of future backlog levels or the rate at which backlog will be recognized as sales. Although modifications and terminations of our orders may be fully or partially offset by cancellation fees, customers can, and sometimes do, terminate or modify these orders. We cannot predict whether cancellations will accelerate or diminish in the future. Cancellations of purchase orders, indications that the customers will not perform or reductions of product quantities in existing contracts could substantially and materially reduce our backlog and, consequently, our future sales. Our failure to replace canceled orders could negatively impact our sales and results of operations. We did not have any significant cancellations in 2023, 2022 2021 and 2020, 2021.

Due to the nature of our business and products, we may be liable for damages based on product liability and warranty claims.

Due to the high pressures and low temperatures at which many of our products are used, the inherent risks associated with concentrated industrial and hydrocarbon gases, and the fact that some of our products are relied upon by our customers or end users in their facilities or operations or are manufactured for relatively broad industrial, transportation, or consumer use, we face an inherent risk of exposure to claims (which we have been subject to from time to time and some of which were substantial including the cryobiological storage tank lawsuits filed in 2018 as discussed in Item 3. "Legal Proceedings" relating to our since divested

Cryobiological business, but for which we retained and are in the process of settling settled certain potential liabilities) in the event that the failure, use, or misuse of our products results, or is alleged to result, in death, bodily injury, property damage, or economic loss. We believe that we meet or exceed existing professional specification standards recognized or required in the industries in which we operate. Although we currently maintain product liability coverage, which has generally been adequate for existing product liability claims and for the continued operation of our business, it includes customary exclusions and conditions, it may not cover certain specialized applications such as aerospace-related applications, and it generally does not cover warranty claims. Additionally, such insurance may become difficult to obtain or be unobtainable in the future on terms acceptable to us. We had net out-of-pocket exposure with respect to the recent March 2023 settlement related to the Cryobiological business in the amount of \$73.0 million. \$73.0 million. A successful product liability claim or series of claims against us, including one or more consumer claims purporting to constitute class actions or claims resulting from extraordinary loss events, in excess of or outside our insurance coverage, or a significant warranty claim or series of claims against us, could materially decrease our liquidity, impair our financial condition, and adversely affect our results of operations.

Governmental energy Energy policies could change or expected changes could fail to materialize which could adversely affect our business or prospects.

Energy policy can develop rapidly in the global markets we serve, including the United States, Asia, Australia, Europe, and Latin America. serve. Within the last few years, significant developments have taken place, primarily in international markets that we serve with respect to energy policy and related regulations. We anticipate that energy policy will continue to be an important regulatory priority globally, as well as on a national, state, and local level. As energy policy continues to evolve, the existing rules and incentives that impact the energy-related segments of our business may change. It is difficult, if not impossible, to predict what changes in energy policy might occur in the future and the timing of potential changes and their impact on our business, including potential changes that could originate from the current U.S. Presidential administration.

Changes in the industries that we operate in, including pricing fluctuations and reductions and capital expenditures could harm our business, financial condition, and results of operations.

A significant amount of our sales is to customers in concentrated industries. Demand for a significant portion of our products depends upon the level of capital expenditures by companies in the industries we serve. Deterioration and significant decline in the capital expenditures of our customers may decrease demand for our products and cause downward pressure on the prices we charge. Accordingly, if there is a downturn in the industries we serve, our business, financial condition, and results of operations could be adversely affected. business.

Our exposure to fixed pricing on certain long-term customer contracts and performance guarantees, could negatively impact our financial results.

A substantial portion of our sales has historically been derived from long-term contracts which may involve long-term fixed price commitments to customers or guarantees of equipment or process performance and which are sometimes difficult to execute. To the extent that any of our contracts are delayed, we fail to satisfy a performance guarantee, our

subcontractors fail to perform, contract counterparties successfully assert claims against us, the original cost estimates in these or other contracts prove to be inaccurate or the contracts do not permit us to pass increased costs on to our customers, profitability from a particular contract may decrease or project losses may be incurred, which, in turn, could decrease our sales and overall profitability.

Fluctuations in currency exchange or interest rates may adversely affect our financial condition and operating results.

A significant portion of our revenue and expense is incurred outside of the United States. We must translate revenues, income and expenses, as well as assets and liabilities into U.S. dollars using exchange rates during or at the end of each period. Fluctuations in currency exchange rates have had and will continue to have an impact on our financial condition, operating results, and cash flow. While we monitor and manage our foreign currency exposure with **limited** use of derivative financial instruments to mitigate these exposures, fluctuations in currency exchange rates may materially impact our financial and operational results.

In addition, we are exposed to changes in interest rates. While our senior secured and senior unsecured notes have a fixed cash coupon, other instruments, primarily borrowings under our senior secured revolving credit facility due October 2026 are exposed to variable interest rates. Our convertible notes contain cumulative dividends that can be paid in cash or equity shares, in certain circumstances. The impact of a 100 basis point increase in interest rates to our senior secured revolving credit facility is discussed in the "Quantitative and Qualitative Disclosures About Market Risk" section of this Annual Report. We also **will** have increased interest rate exposure with respect to certain indebtedness incurred in connection with the **pending** Howden **acquisition**. **Acquisition**.

As **an increasingly a global business, we are exposed to economic, political, and other risks in different countries which could materially reduce our sales, profitability or cash flows, or materially increase our liabilities.**

Since we manufacture and sell our products worldwide, our business is subject to risks associated with doing business internationally. In **2023**, **2022** and **2021**, **and 2020**, **59%**, **42%**, **56%**, and **51%** **56%**, respectively, of our sales occurred in international markets. Our future results could be harmed by a variety of factors, including:

- changes in foreign currency exchange rates;
- exchange controls and currency restrictions;
- changes in a specific country's or region's political, social or economic conditions, particularly in emerging markets;
- civil unrest, the threat of or actual military conflict between nations, **such as the Russian invasion of Ukraine, or increased international tensions, such as between the U.S. and China**, other turmoil or outbreak of disease or illness, such as Covid-19, in any of the countries in which we sell our products or in which we or our suppliers operate;
- tariffs, other trade protection measures, as discussed in more detail below, and import or export licensing requirements;
- potential adverse changes in trade agreements between the United States and foreign countries, including the recently enacted United States-Mexico-Canada Agreement (USMCA), among the United States, Canada and Mexico;
- **uncertainty and potentially negative consequences relating to the implementation of the United Kingdom's decision to leave the European Union ("Brexit")**;
- potentially negative consequences from changes in U.S. and international tax laws;
- difficulty in staffing and managing geographically widespread operations;
- differing labor regulations;
- requirements relating to withholding taxes on remittances and other payments by subsidiaries;
- different regulatory regimes controlling the protection of our intellectual property;
- restrictions on our ability to own or operate subsidiaries, make investments or acquire new businesses in these jurisdictions;
- restrictions on our ability to repatriate dividends from our foreign subsidiaries;
- difficulty in **collecting international accounts receivable**;
- **difficulty in** enforcement of contractual obligations under non-U.S. law;
- transportation delays or interruptions;
- changes in regulatory requirements; and
- the burden of complying with multiple and potentially conflicting laws.

Our international operations and sales also expose us to different local political and business risks and challenges. In addition, **because at times** some of our **international** sales are to suppliers that perform work for foreign governments, **and as a result we are may be** subject to the political risks associated with foreign government projects. For example, certain foreign governments may require suppliers for a project to obtain products solely from local manufacturers or may prohibit the use of products manufactured in certain countries.

Our operations in markets such as Asia, Australia, India, Europe, and South America, may cause us difficulty due to greater regulatory barriers than in the United States, the necessity of adapting to new regulatory systems, problems related to entering new markets with different economic, social and political systems and conditions, and significant competition from the primary participants in these markets, some of which may have substantially greater resources than us. In addition, unstable political conditions or civil unrest, including political instability or threatened military actions **in Eastern Europe, the Middle East, Hong Kong or elsewhere**, could negatively impact our order levels and sales in a region or our ability to collect receivables from customers or operate or execute projects in a region.

Changes in U.S. trade policy, tariff and import/export regulations may have a material adverse effect on our business, financial condition and results of operations.

Our international operations and transactions also depend upon favorable trade relations between the United States and the foreign countries in which our customers and suppliers have operations. Changes in U.S. or international social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories or countries where we currently sell our products or conduct our business, as well as any negative sentiment toward the **U.S. United States** as a result of such changes, could adversely affect our business. **For example, the Trump administration instituted changes in trade policies that included the negotiation or termination of trade agreements, the imposition of higher tariffs on imports into the U.S., economic sanctions on individuals, corporations or countries, and other government**

regulations affecting trade between the U.S. and other countries where we conduct our business. It may be time-consuming and expensive for us to alter our business operations in order to comply with any changes in policy that may be implemented from time to time.

U.S. government policy changes and proposals may result in greater restrictions and economic disincentives on international trade. The implementation of new tariffs and other changes in U.S. trade policy could trigger retaliatory actions by affected countries, and certain foreign governments have instituted or have been considering imposing trade sanctions on certain U.S. goods. We do a significant amount of business that would could be impacted by changes to the trade policies of the U.S. United States and foreign countries (including governmental action related to tariffs, international trade agreements, or economic sanctions). Such changes have the potential to adversely impact the U.S. economy or certain sectors thereof, our industry and the global demand for our products. We may not succeed in developing and implementing policies and strategies to counter the foregoing factors effectively in each location where we do business and the foregoing factors may cause a reduction in our sales, profitability or cash flows, or cause an increase in our liabilities.

Data privacy and data security considerations could impact our business.

The interpretation and application of data protection laws including but not limited to the General Data Protection Regulation (the "GDPR") in Europe and evolving standards in the U.S., are uncertain and evolving. It is possible that these laws may be interpreted and applied in a manner that is inconsistent with our data security practices. Complying with these various laws is various laws is difficult and could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business. Further, although we are implementing internal controls and procedures designed to ensure compliance with the GDPR and other privacy-related laws, rules and regulations (collectively, the "Data Protection Laws"), there can be no assurance that our controls and procedures will enable us to fully comply with all Data Protection Laws.

Despite our efforts to protect sensitive information and confidential and personal data, comply with applicable laws, rules and regulations and implement data security measures, our facilities and systems may be vulnerable to security breaches and other data loss, including cyber-attacks. In addition, it is not possible to predict the impact on our business of the future loss, alteration or misappropriation of information in our possession related to us, our employees, former employees, customers, suppliers or others. This could lead to negative publicity, legal claims, theft, modification or destruction of proprietary information or key information, damage to or inaccessibility of critical systems, manufacture of defective products, production downtimes, operational disruptions and other significant costs, which could adversely affect our reputation, financial condition and results of operations.

We are subject to potential insolvency or financial distress of third parties.

We are exposed to the risk that third parties to various arrangements who owe us money or goods and services, or who purchase goods and services from us, will not be able to perform their obligations or continue to place orders due to insolvency or financial distress. If third parties fail to perform their obligations under arrangements with us, we may be forced to replace the underlying commitment at current or above market prices or on other terms that are less favorable to us or we may have to write off receivables in the case of customer failures to pay. If this happens, whether as a result of the insolvency or financial distress of a third party or otherwise, we may incur losses, or our results of operations, financial position or liquidity could otherwise be adversely affected.

Failure to protect our intellectual property and know-how could reduce or eliminate any competitive advantage and reduce our sales and profitability, and the cost of protecting our intellectual property may be significant.

We rely on a combination of internal procedures, nondisclosure agreements and intellectual property rights assignment agreements, as well as licenses, patents, trademarks and copyright law to protect our intellectual property and know-how. Our intellectual property rights may not be successfully asserted in the future or may be invalidated, circumvented or challenged. For example, we frequently explore and evaluate potential relationships and projects with other parties, which often require that we provide the potential partner with confidential technical information. While confidentiality agreements are typically put in place, there is a risk the potential partner could violate the confidentiality agreement and use our technical information for its own benefit or the benefit of others or compromise the confidentiality. In addition, the laws of certain foreign countries in which our products may be sold or manufactured do not protect our intellectual property rights to the same extent as the laws of the United States. In addition, the United States has transitioned from a "first-to-invent" to a "first-to-file" patent system, which means that between two identical, pending patent applications, the first inventor no longer receives priority on the patent to the invention. As a result, the Leahy-Smith America Invents Act may require us to incur significant additional expense and effort to protect our intellectual property. Failure or inability to protect our proprietary information could result in a decrease in our sales or profitability.

We have obtained and applied for some U.S. and foreign trademark and patent registrations and will continue to evaluate the registration of additional trademarks and patents, as appropriate. We cannot guarantee that any of our pending applications will be approved. Moreover, even if the applications are approved, third parties may seek to oppose or otherwise challenge them. A failure to obtain registrations in the United States or elsewhere could limit our ability to protect our trademarks and technologies and could impede our business. Further, the protection of our intellectual property may require expensive investment in protracted litigation and the investment of substantial management time and there is no assurance we ultimately would prevail or that a successful outcome would lead to an an economic benefit that is greater than the investment in the litigation. The patents in our patent portfolio are scheduled to expire from 2023 2024 to 2040, 2042.

In addition, we may be unable to prevent third parties from using our intellectual property rights and know-how without our authorization or from independently developing intellectual property that is the same as or similar to ours, particularly in those countries where the laws do not protect our intellectual property rights as fully as in the United States. We compete in a number of industries (e.g., heat exchangers and cryogenic storage) that are small or specialized, which makes it easier for a competitor to monitor our activities and increases the risk that ideas will be stolen. The unauthorized use of our know-how by third parties could reduce or eliminate any competitive advantage we have developed, cause us to lose sales or otherwise harm our business or increase our expenses as we attempt to enforce our rights.

We may be required to make expenditures in order to comply with environmental, health and safety laws and climate change regulations, or incur additional liabilities under these laws and regulations.

We are subject to numerous environmental, health and safety laws and regulations that impose various environmental controls on us or otherwise relate to environmental protection and various health and safety matters, including the discharge of pollutants in the air and water, the handling, use, treatment, storage and clean-up of solid and hazardous materials and wastes, the investigation and remediation of soil and groundwater affected by hazardous substances and the requirement to obtain and maintain permits and licenses. These laws and regulations often impose strict, retroactive and joint and several liability for the costs and damages resulting from cleaning up our or our predecessors' facilities and third-party disposal sites. Compliance with these laws generally increases the costs of transportation and storage of raw materials and finished products, as well as the costs of storing and disposing waste, and could decrease our liquidity and profitability and increase our liabilities. Health and safety and other laws in the jurisdictions in which we operate

impose various requirements on us including state licensing requirements that may benefit our customers. If we are found to have violated any of these laws, we may become subject to corrective action orders and fines or penalties, and incur substantial costs, including substantial remediation costs and commercial liability to our customers. Further, we also could be subject to future liability resulting from conditions that are currently unknown to us that could be discovered in the future.

We are currently remediating or developing work plans for remediation of environmental conditions involving certain current or former facilities. For example, the discovery of contamination arising from historical industrial operations at our Clarksville, Arkansas property, which is currently being leased to a third party business, has exposed us, and in the future may continue to expose us, to remediation obligations. We have also been subject to environmental liabilities for other sites where we formerly operated or at locations where we or our predecessors did or are alleged to have operated. To date, our environmental remediation expenditures and costs for otherwise complying with environmental laws and regulations have not been material, but the uncertainties associated with the investigation and remediation of contamination and the fact that such laws or regulations change frequently makes predicting the cost or impact of such laws and regulations on our future operations uncertain. Stricter environmental, safety and health laws, regulations or enforcement policies could result in substantial costs and liabilities to us and could subject us to more rigorous scrutiny. Consequently, compliance with these laws could result in significant expenditures, as well as other costs and liabilities that could decrease our liquidity and profitability and increase our liabilities.

There is a growing political and scientific consensus that emissions of greenhouse gases alter the composition of the global atmosphere in ways that are affecting the global climate. Various stakeholders, including legislators and regulators, stockholders and non-governmental organizations, as well as companies in many business sectors, are considering ways to reduce greenhouse gas emissions. New regulations could result in product standard requirements for our global businesses but because any impact is dependent on the design of the mandate or standard, we are unable to predict its significance at this time. Furthermore, the potential physical impacts of climate change on our customers, and therefore on our operations, are speculative and highly uncertain, and would be particular to the circumstances developing in various geographical regions. These may include changes in weather patterns (including drought and rainfall levels), water availability, storm patterns and intensities, and temperature levels. These potential physical effects may adversely impact the cost, production, sales and financial performance of our operations.

Our We could be obligated to make significant contributions to our pension plan is currently plans, some of which are underfunded, and we contribute to a multi-employer plan for collective bargaining U.S. employees, which is underfunded.

Certain U.S. hourly and salaried employees are covered by our Chart defined benefit pension plan. The defined benefit pension plan has been frozen since February 2006. As of December 31, 2022 December 31, 2023, the projected benefit obligation under our pension plan was approximately \$50.0 million \$48.1 million, and the value of the assets of the plan was approximately \$49.1 million \$54.0 million. Although our Chart pension plan was fully funded as of December 31, 2023, the performance of assets in the plan and other related factors beyond our control have the potential to adversely affect the funding status of our pension plan in the future.

As part of the Howden Acquisition, we assumed responsibility for ten additional defined benefit plans outside of the United States, which are predominantly in Germany, covering certain employees of Howden. As of December 31, 2023, the aggregate projected benefit obligation of the Howden pension plans was \$43.0 million, and the aggregate value of the assets of the Howden pension plans was \$41.8 million, resulting in our the Howden pension plan plans being underfunded by approximately \$0.9 million. \$1.2 million in the aggregate.

We are also a participant in a multi-employer plan, which is underfunded. Among other risks associated with multi-employer plans, contributions and unfunded obligations of the multi-employer plan are shared by the plan participants and we may inherit unfunded obligations if other plan participants withdraw from the plan or cease to participate. Additionally, if we elect to stop participating in the multi-employer plan, we may be required to pay amounts related to withdrawal liabilities associated with the underfunded status of the plan. If the performance of the assets in our Chart pension plan, the Howden pension plans or the multi-employer plan does not meet expectations or if other actuarial assumptions are modified, our required pension contributions for future years could be higher than we expect, which may negatively impact our results of operations, cash flows and financial condition.

We operate in many different jurisdictions, and we could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-corruption laws.

The U.S. Foreign Corrupt Practices Act ("FCPA") and similar worldwide anti-corruption laws generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. Our internal policies mandate compliance with these anti-corruption laws. We operate in many parts of the world that have experienced corruption to some degree, and in certain circumstances, strict compliance with anti-corruption laws may conflict with local customs and practices. Despite our training and compliance programs, we cannot assure you that our internal control policies and procedures always will protect us from reckless or criminal acts committed by our employees or agents. Our continued expansion outside the U.S., United States, including in developing countries, could increase the risk of such violations in the future. Violations of these laws, or allegations of such violations, could disrupt our business and result in a material adverse effect on our results of operations or financial condition.

Our operations could be impacted by the effects of severe weather.

Some of our operations, including our operations in New Iberia, Louisiana, Theodore, Alabama and Houston, Texas, the U.S. Gulf Coast, are located in geographic regions and physical locations that are susceptible to physical damage and longer-term economic disruption from severe weather. We also could make significant future capital expenditures in hurricane-susceptible or other severe weather locations from time to time. These weather events can disrupt our operations, result in damage to our properties and negatively affect the local economy in which these facilities operate. Severe weather may cause production or delivery delays as a result of the physical damage to the facilities, the unavailability of employees and temporary workers, the shortage of or delay in receiving certain raw materials or manufacturing supplies and the diminished availability or delay of transportation for customer shipments, any of which may have an adverse effect on our sales and profitability. Although we maintain insurance subject to certain deductibles, which may cover some of our losses, that insurance may become unavailable or prove to be inadequate.

We are subject to regulations governing the export of our products.

Due to our significant foreign sales, our Our export activities are subject to regulation, including the U.S. Treasury Department's Office of Foreign Assets Control's regulations. We believe we are in compliance with these regulations and maintain robust programs intended to maintain compliance. However, unintentional lapses in our compliance or uncertainties associated with changing regulatory requirements could result in future violations (or alleged violations) of these regulations. Any violations may subject us to government scrutiny, investigation and civil and criminal penalties and may limit our ability to export our products.

As a provider of products to the U.S. government, we are subject to certain federal rules, regulations, audits and investigations, the violation or failure of which could adversely affect our business.

We sell From time to time, certain of our products and services may be provided to the U.S. government; and, therefore, we must comply with and are affected by laws and regulations governing purchases by the U.S. government. Although we are not subject to all contractor requirements, the generally more extensive requirements governing "Government contract laws and regulations" affect how we do business with our government customers and, in some instances, impose added costs on our business. For example, a violation of specific laws and regulations could result in the imposition of fines and penalties or the termination of our contracts or debarment from bidding on contracts. In some instances, these laws and regulations impose terms or rights that are more favorable to the government than those typically available to commercial parties in negotiated transactions.

Current economic and political conditions make tax rules in jurisdictions are subject to significant change, and unanticipated changes in our effective tax rate could adversely affect our future results.

Our future results of operations could be affected by changes in the effective tax rate as a result of changes in tax laws, regulations and judicial rulings. In December 2017, the Tax Cuts and Jobs Act of 2017 was signed into law in the United States, which among other things, lowered the federal corporate income tax rate from 35% to 21% and moved the country towards a territorial tax system with a one-time mandatory tax on previously deferred foreign earnings of foreign subsidiaries. As of December 31, 2023, provisions of the law as currently constructed are expected to change for future tax years. Although our effective tax rate decreased during 2018, there can be no assurances that any expected benefit from the Tax Cuts and Jobs Act will be maintained long-term given political and other uncertainties.

Also, further changes in the tax laws of foreign jurisdictions could arise, including as a result of the The Organisation for Economic Co-operation and Development (OECD)'s base erosion and profit shifting (BEPS) project undertaken by the Organisation for Economic Co-operation and Development (OECD), is an area we continue to monitor due to its global reach. The OECD, which represents a coalition of member countries, has issued recommendations that, in some cases, would make substantial changes to numerous long-standing tax positions and principles. As countries, in which we operate, continue to pass laws to adopt the tenants of the BEPS Framework (tiered adoption over multiple years), we will continue to monitor potential impacts to the Company's tax stature. These contemplated changes to the extent adopted have begun adoption by OECD members and/or other various countries during 2023, could increase tax uncertainty and may adversely affect our provision for income taxes. We will continue to monitor developments and impacts to our provision for income taxes.

Our effective tax rate could also be adversely affected by changes in the mix of earnings and losses in countries with differing statutory tax rates, certain non-deductible expenses arising from share-based compensation, the valuation of deferred tax assets and liabilities and changes in accounting principles. In addition, we are subject to income tax audits by many tax jurisdictions throughout the world. Although we believe our income tax liabilities are reasonably estimated and accounted for in accordance with applicable laws and principles, an adverse resolution of one or more uncertain tax positions in any period could have a material impact on the results of operations for that period.

Dividend requirements associated with the Series B Mandatory Convertible Preferred Stock that Chart issued to fund a portion of the Howden Acquisition subject it to certain risks.

In December 2022, we issued 8,050,000 depository shares, each representing a 1/20th interest in a share of Chart's Series B Mandatory Convertible Preferred Stock (the "Mandatory Convertible Preferred Stock"). Any future payments of cash dividends, and the amount of any cash dividends we pay, on the Mandatory Convertible Preferred Stock will depend on, among other things, business condition, our financial condition, earnings and liquidity, as well as other factors that our board of directors (or an authorized committee thereof) may consider relevant. Dividends will accumulate from the initial issue date and, to the extent that we are legally permitted to pay dividends and our board of directors, or an authorized committee thereof, declares a dividend payable with respect to the Mandatory Convertible Preferred Stock, we will pay such dividends in cash, or subject to certain limitations, by delivery of shares of our common stock or through any combination of cash and shares of our common stock, as determined by our board of directors in its sole discretion. Any unpaid dividends will continue to accumulate.

The terms of the Mandatory Convertible Preferred Stock further provide that if dividends have not been declared and paid for six or more dividend periods (including, for the avoidance of doubt, the dividend period beginning on, and including, the initial issue date and ending on, but excluding, March 15, 2023), whether or not for consecutive dividend periods, the holders of such shares of Mandatory Convertible Preferred Stock, voting together as a single class with holders of all other preferred stock of equal rank having similar voting rights, will be entitled at our next annual or special meeting of stockholders to vote for the election of a total of two additional members of our board of directors, subject to certain limitations.

Risks Related to Our Leverage

Our substantial leverage and future debt service obligations could adversely affect our business, financial condition, limit and results of operations and our ability to raise additional capital to fund meet our operations, limit payment obligations under our ability to react to changes in the economy or our industry, impact the way we operate our business, expose us to interest rate risk to the extent of our variable rate debt and prevent us from fulfilling our debt service obligations. debt.

We are substantially leveraged and have future debt service obligations. Our financial performance could be affected by our leverage. As of December 31, 2022 December 31, 2023, our total indebtedness was \$2,333.3 million \$3,963.9 million. In addition, at that date, under our senior secured revolving credit facility, we had \$89.1 million \$272.0 million of letters of credit and bank guarantees outstanding and borrowing capacity of approximately \$806.4 million. Further, as of December 31, 2022, our indebtedness under our senior secured notes due 2030 and our senior unsecured notes due 2031 was \$1,460.0 million and \$510.0 million, respectively. As of December 31, 2022, our indebtedness under our Convertible notes due 2024 was \$258.8 million \$625.2 million. Through separate facilities, our subsidiaries had \$45.7 million \$134.3 million of letters of credit and bank guarantees outstanding at December 31, 2022 December 31, 2023. We expect to incur additional debt in connection with closing of the Acquisition as described below.

Our level of indebtedness could have important negative significant consequences, including:

- difficulty in generating sufficient cash flow and reduced availability of cash for our operations and other business activities;
- difficulty in obtaining financing in the future;
- exposure to risk of increased interest rates due to on variable rates of interest rate indebtedness under our senior secured revolving credit facility; facility and term loans;
- vulnerability to general economic downturns and adverse industry conditions;
- increased competitive disadvantage due compared to our competitors that have less debt service obligations; or are less leveraged;
- adverse customer reaction to our debt levels;
- inability to comply with covenants in, and potential for default under, our debt instruments; and

- failure to refinance any of our debt. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources."

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to sell assets, seek additional capital or seek to restructure or refinance our indebtedness. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. We may be unable to consummate those asset sales to raise capital or sell assets at prices that we believe are fair and proceeds that we do receive may be inadequate to meet any debt service obligations then due.

Despite our current debt levels, we may still be able to incur substantially more debt. This substantial additional indebtedness, which could further exacerbate the risks that we face.

We may be able to incur substantial additional indebtedness in the future. The terms of our debt instruments do not fully prohibit us from doing so. Our senior secured revolving credit facility provides commitments of up to \$1,000.0 million, approximately ~~\$806.4 million~~ ~~\$625.2 million~~ of which would have been available for future borrowings (after giving effect to letters of credit and bank guarantees outstanding) as of ~~December 31, 2022~~ ~~December 31, 2023~~. Additionally, we entered into a debt commitment letter for a senior bridge loan facility with an aggregate principal amount of \$1,467.1 million to fund the Acquisition. We also entered into a debt commitment letter for a senior secured term loan facility in the aggregate amount of up to \$1,434.8 million to fund the Acquisition. As of December 31, 2022, both the senior bridge loan facility and the senior secured term loan facility were ~~undrawn~~. See Item 7. "Management's Discussion and Analysis of Financial

Condition and Results of Operations — Liquidity and Capital Resources — Debt Instruments and Related Covenants." If new debt is added to our current debt levels, the related risks that we now face could intensify.

The terms of our existing debt may limit our ability to finance future operations or capital needs or engage in other business activities that may be in our interest.

The terms of our existing debt impose, and the terms of any future indebtedness may impose, operating and other restrictions on us and our subsidiaries. Such restrictions affect or will affect, and in various circumstances limit or prohibit, among other things, our ability and the ability of our subsidiaries to:

- incur or guarantee additional indebtedness;
- create liens;
- pay dividends based on our leverage ratio and make other distributions in respect of our capital stock;
- redeem or buy back our capital stock based on our leverage ratio;
- make certain investments or certain other restricted payments;
- enter into a new line of business;
- sell or transfer certain kinds of assets;
- enter into certain types of transactions with affiliates; and
- effect mergers or consolidations.

The senior secured revolving credit facility due October 2026 also requires us to achieve certain financial and operating results and maintain compliance with specified financial ratios. Our ability to comply with these ratios may be affected by events beyond our control.

The restrictions contained in the senior secured revolving credit facility and our indentures could:

- limit our ability to plan for or react to market or economic conditions or meet capital needs or otherwise restrict our activities or business plans; and
- adversely affect our ability to finance our operations, acquisitions, investments or strategic alliances or other capital needs or to engage in other business activities that would be in our interest.

A breach of any of these covenants could result in a default under our debt agreements. If an event of default occurs under our debt agreements, which includes an event of default under the other debt agreements, the lenders or holders could elect to declare all indebtedness outstanding, together with accrued and unpaid interest, to be immediately due and payable. The lenders under our senior secured revolving credit facility will also have the right in these circumstances to terminate any commitments they have to provide further financing.

If we were unable to repay or otherwise refinance this indebtedness when due, our lenders could sell the collateral securing the senior secured revolving credit facility due October 2026 and the secured notes, which constitutes substantially all of our ~~and our~~ domestic wholly-owned subsidiaries' assets.

Our 1.00% Convertible Senior Subordinated Notes due November 2024 have certain fundamental change and conditional conversion features and our Senior Secured Notes due 2030 and our Senior Unsecured Notes due 2031 have certain change in control features which, if triggered, may adversely affect our financial condition.

If a fundamental change occurs under our 1.00% Convertible Senior Subordinated Notes due November 2024, the holders of the convertible notes may require us to purchase for cash any or all of the convertible notes. In addition, upon the occurrence of certain kinds of change of control, we will be required to offer to repurchase all of the outstanding secured notes and unsecured notes at 101% of the principal amount thereof plus accrued and unpaid interest, if any, to the date of repurchase. However, there can be no assurance that we will have sufficient funds at the time of the fundamental change or change in control to purchase all of the convertible notes, secured notes or unsecured notes delivered for purchase, and we may not be able to arrange necessary financing on acceptable terms, if at all. Likewise, if one of the conversion contingencies of our convertible notes is triggered, holders of convertible notes will be entitled to convert the convertible notes at any time during specified periods.

We are subject to counterparty risk with respect to the convertible note hedge and capped call transactions associated with our 1.00% Convertible Senior Subordinated Notes due November 2024.

The option counterparties for our convertible note hedging arrangements are financial institutions, and we will be subject to the risk that any or all of them might default under the convertible note hedge and capped call transactions. Our exposure to the credit risk of the option counterparties is not secured by any collateral. Global economic conditions during the 2008-2009 economic downturn have from time to time resulted in the actual or perceived failure or financial difficulties of many financial institutions. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under the convertible note hedge and capped call transactions with that option counterparty. Our exposure will depend on many factors but, generally, the increase in our exposure will be correlated to the increase in the market price and in the volatility of our common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our common stock. We can provide no assurances as to the financial stability or viability of the option counterparties.

Risks Related to the Trading Market for Our Preferred and Common Stock

Our common stock has experienced, and may continue to experience, price volatility.

Our common stock has at times experienced substantial price volatility as a result of many factors, including the general volatility of stock market prices and volumes, changes in securities analysts' estimates of our financial performance, variations between our actual and anticipated financial results, fluctuations in order or backlog levels, fluctuations in energy prices, or uncertainty about current global economic conditions. For these reasons, among others, the price of our stock may continue to fluctuate.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws and other agreements and in Delaware law may discourage a takeover attempt.

Provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law could make it more difficult for a third party to acquire us. Provisions of our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law impose various procedural and other requirements, which could make it more difficult for stockholders to effect certain corporate actions. For example, our amended and restated certificate of incorporation authorizes our board of directors to determine the rights, preferences, privileges and restrictions of unissued series of preferred stock, without any vote or action by our stockholders. Therefore, our board of directors can authorize and issue shares of preferred stock with voting or conversion rights that could adversely affect the voting or other rights of holders of our common stock. These rights may have the effect of delaying or deterring a change of control of our company. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock.

In addition, the terms of our convertible notes, secured notes and unsecured notes may require us to purchase these notes for cash in the event of a takeover of our Company. The indentures governing the applicable notes also prohibit us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the applicable notes. These and other provisions applicable to the notes may have the effect of increasing the cost of acquiring us or otherwise discourage a third party from acquiring us.

The issuance of common stock upon conversion of our 1.00% Convertible Senior Subordinated Notes due November 2024 or 6.75% Series B Mandatory Convertible Preferred Stock or the Series A Cumulative Participating Convertible Preferred Stock to be issued upon the closing of the Howden Acquisition could cause dilution to the interests of our existing stockholders.

As of December 31, 2022 December 31, 2023, we had \$258.8 million \$258.7 million aggregate principal amount of our 1.00% Convertible Senior Subordinated Notes due November 2024. Prior to the close of business on the business day immediately preceding August 15, 2024, the convertible notes will be convertible only upon satisfaction of certain conditions. Holders may convert their 1.00% convertible notes at their option at any time after August 15, 2024 until the close of business on the second scheduled trading day immediately preceding November 15, 2024. As a result of attaining these specified market price conditions, the notes were are convertible in the first quarter of 2023, 2024, although no notes there have been converted no significant conversions to date. On December 31, 2020, we amended the Indenture governing our 1.00% Convertible Senior Subordinated Notes due November 2024 to eliminate share settlement thus leaving us with two settlement options: (1) cash settlement or (2) cash for par and any combination of cash and shares for the excess settlement amount above the \$258.8 million \$258.7 million aggregate principal amount of our 1.00% Convertible Senior Subordinated Notes due November 2024. We currently intend to settle conversions of 1.00% convertible notes through a combination of the payment of cash and issuance of shares, with payments of cash up to the aggregate principal amount of the convertible notes to be converted and delivering shares of our common stock in respect of the remainder, if any, of our conversion obligation in excess of the aggregate principal amount of the notes being converted. Furthermore, holders of the Series A Cumulative Participating Convertible Preferred Stock (that will be issued) upon the closing of the Howden Acquisition have the right to convert their shares into common stock in certain circumstances. The number of shares issued could be significant and such an issuance could cause significant dilution to the interests of the existing stockholders.

In addition, unless earlier converted, each share of the Mandatory Convertible Preferred Stock will automatically convert on or around December 15, 2025 into between 7.0520 and 8.4620 shares of our common stock, subject to customary anti-dilution adjustments. At any time prior to December 15, 2025, a holder of Mandatory Convertible Preferred Stock may elect to convert such holder's shares of the Mandatory Convertible Preferred Stock, in whole or in part, at the minimum conversion rate of 7.0520 shares of common stock per share. If a fundamental change occurs on or prior to December 15, 2025, holders of the Mandatory Convertible Preferred Stock will have the right to convert their shares of Mandatory Convertible Preferred Stock, in whole or in part, into shares of common stock at a conversion rate based on the effective date of the fundamental change and the price paid (or deemed paid) per share of our common stock in such fundamental change. We may also pay declared dividends in cash or, subject to certain limitations, in shares of common stock or in any combination of cash and common stock. Conversion of the Mandatory Convertible Preferred Stock into common stock, as well as the payment of dividends in shares of common stock, could be dilutive to our existing stockholders.

Our common stock will rank ranks junior to the Mandatory Convertible Preferred Stock with respect to dividends and amounts payable in the event of our liquidation, dissolution or winding-up of our affairs.

Our common stock will rank ranks junior to the Mandatory Convertible Preferred Stock with respect to the payment of dividends and amounts payable in the event of our liquidation, dissolution or winding-up of our affairs. This means that, unless accumulated dividends have been paid or set aside for payment on all the outstanding Mandatory Convertible Preferred Stock through the most recently completed dividend period, no dividends may be declared or paid on our common stock subject to limited exceptions. Likewise, in the event of our voluntary or involuntary liquidation, dissolution or winding-up of our affairs, no distribution of our assets may be made to holders of our common stock until we have paid to holders of the Mandatory Convertible Preferred Stock a liquidation preference equal to \$1,000 per share plus accumulated and unpaid dividends.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 1C. Cybersecurity

Risk Management and Strategy

We have established processes for assessing, identifying, and managing material risks associated with cybersecurity threats, as defined in Item 106(a) of Regulation S-K. These risks include, among other things: operational risks, intellectual property theft, fraud, extortion, harm to employees or customers and violation of data privacy or security laws.

By prioritizing cybersecurity at the highest level of our leadership, we assess cybersecurity risk, allocate resources and maintain a culture of cybersecurity awareness throughout Chart. Chart ties cybersecurity or being cyber safe to our key theme of safety, as an industrial manufacturer. Identifying and assessing cybersecurity risk is integrated into our overall risk management systems and processes. Cybersecurity risks related to our business, technical operations, privacy and compliance issues are identified and addressed through third-party assessments, internal IT Audit, IT security, governance, risk and compliance reviews. To defend, detect and respond to cybersecurity incidents, we, among other programs: conduct proactive privacy and cybersecurity reviews of systems and applications, audit applicable data policies, perform penetration testing using external third-party tools and techniques to test security controls, encourage proactive vulnerability reporting, conduct employee training, monitor emerging laws and regulations related to data protection and information security and implement appropriate changes.

We have implemented preparation for incident response, incident response and breach management processes which have four stages: 1) preparation for cybersecurity incidents, 2) detection and analysis of cybersecurity incidents, 3) containment, eradication and recovery, and 4) post-incident analysis. Such incident responses are overseen by leaders from our information security, compliance and legal teams. Security events and data incidents are evaluated, ranked by severity, and prioritized for response and remediation. Incidents are evaluated to determine materiality as well as operational and business impact and reviewed for privacy impact.

We also simulate responses to cybersecurity incidents by conducting tabletop exercises. Our cybersecurity professionals then collaborate with technical and business stakeholders across our business units to further analyze the risk to the company, and form detection, mitigation, and remediation strategies.

As part of the above processes, we regularly engage external auditors and consultants to assess our internal cybersecurity programs and compliance with applicable practices and standards. In past years, our Information Security Management System has continued to work a Plan of Action and Milestones (POAM) tied to the United States Cybersecurity Maturity Model Certification (CMMC) program, formerly the National Institute of Standards and Technology (NIST) Cybersecurity Framework, while looking for synergies across other standards, such as the Information Assurance Technical Framework (IATF), or as required for specific product lines or customers. Furthermore, we benchmark externally against other industrial manufacturers within the B2B (Business to Business) manufacturing industry, and even to a vertical level to determine Chart's risk profile through cybersecurity insurance tools that rank companies and bring them together within forums for cyber intelligence sharing and best practices.

Our risk management program also assesses third-party risks to identify and mitigate risks from vendors, suppliers, and other business partners associated with our use of third-party service providers. Cybersecurity risks are evaluated when determining the selection and oversight of applicable third-party service providers and potential fourth-party risks when handling and/or processing our employee, business or customer data. In addition, we strive to have the appropriate cybersecurity clauses in our agreements and where necessary we have Data Processing Agreements (DPAs) put in place for privacy of data.

We describe whether and how risks from identified cybersecurity threats, including as a result of any previous cybersecurity incidents, have materially affected or are reasonably likely to materially affect us, including our business strategy, results of operations, or financial condition, under the heading "Data privacy and data security considerations could impact our business" included as part of our risk factor disclosures at Item 1A of this Annual Report on Form 10-K.

Governance

Cybersecurity is an important part of our risk management processes and an area of focus for our Board and management. Our Audit Committee is responsible for the oversight of risks from cybersecurity threats. The Board receives updates on a regular basis from senior management, including leaders from our information security, compliance and legal teams regarding matters of cybersecurity. This includes existing and new cybersecurity risks, status on how management is addressing and/or mitigating those risks, cybersecurity, and data privacy incidents (if any) and status of key information security initiatives. Our Board members also engage in ad hoc conversations with management on cybersecurity-related news events and discuss any updates to our cybersecurity risk management and strategy programs.

Our cybersecurity risk management and strategy processes are overseen by leaders from our information security, compliance and legal teams. Such individuals have an average of over 15 years of prior work experience in various roles involving information technology, including security, auditing, compliance, systems and programming. These individuals monitor the prevention, mitigation, detection and remediation of cybersecurity incidents through their management of, and participation in, the cybersecurity risk management and strategy processes described above, including our incident response plan, and report to the Audit Committee on any appropriate items.

Item 2. Properties

We occupy 65,186 facilities throughout the world totaling approximately 5.9 million 13.0 million square feet including the locations listed below, with the majority devoted to manufacturing, assembly, and storage. We also own several plots storage, none of land in the Czech Republic totaling approximately 0.5 million square feet, with the majority devoted to outdoor storage, which are individually material. Of these facilities, approximately 4.2 million 8.6 million square feet are owned, and 1.7 million 4.4 million square feet are occupied under operating leases. One of our owned facilities, a 0.1 million square foot facility Because Chart is global in Clarksville, Arkansas, is leased to a third party. We currently lease approximately 20.8 thousand square feet for our corporate office in Ball Ground, Georgia. Our major owned facilities in the United States nature, with substantial inter-segment cooperation, properties are subject to mortgages securing our 2026 Credit Facilities, often used by multiple business segments.

The following table summarizes information about our principal plants and other materially important physical properties as of January 31, 2023:

Segment	Location	Ownership	Use
Cryo Tank Solutions/Specialty Products/Corporate	Ball Ground, Georgia, U.S.	Leased	Manufacturing/Office/Warehouse
Corporate	Hyderabad, India	Leased	Office
Corporate	Luxembourg, Luxembourg	Leased	Office
Cryo Tank Solutions/Specialty Products	Canton, Georgia, U.S.	Owned	Manufacturing/Office
Cryo Tank Solutions/Heat Transfer Systems/Repair, Service & Leasing	Milan, Italy	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products	Theodore, Alabama, U.S.	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Andhra Pradesh, India	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Changzhou, China	Leased/Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Decin, Czech Republic	Leased/Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Goch, Germany	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Kuala Lumpur, Malaysia	Leased	Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	Lery, France	Owned	Manufacturing/Office
Cryo Tank Solutions/Specialty Products/Repair, Service & Leasing	New Prague, Minnesota, U.S.	Leased/Owned	Manufacturing/Office
Heat Transfer Systems	Pombia, Italy	Leased	Manufacturing/Office
Heat Transfer Systems/Repair, Service & Leasing	Beasley, Texas, U.S.	Owned	Manufacturing/Warehouse
Heat Transfer Systems/Repair, Service & Leasing	Tulsa, Oklahoma, U.S.	Leased/Owned	Manufacturing/Office
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing	La Crosse, Wisconsin, U.S.	Leased/Owned	Manufacturing/Office/Warehouse
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing	New Iberia, Louisiana, U.S.	Leased	Manufacturing/Office
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing	Valencia, California, U.S.	Leased	Manufacturing/Office
Heat Transfer Systems/Specialty Products/Repair, Service & Leasing/Corporate	The Woodlands, Texas, U.S.	Leased	Office
Specialty Products	Allentown, Pennsylvania, U.S.	Owned	Office
Specialty Products	Austin, Texas, U.S.	Leased	Manufacturing/Warehouse
Specialty Products	Duluth, Georgia, U.S.	Leased	Office
Specialty Products	Fayetteville, Arkansas, U.S.	Leased	Office/Warehouse
Specialty Products	Haryana, India	Leased	Office
Specialty Products	Orem, Utah, U.S.	Leased	Manufacturing/Office
Specialty Products	Palmerton, Pennsylvania, U.S.	Leased	Office/Warehouse
Repair, Service & Leasing	Franklin, Indiana, U.S.	Leased	Manufacturing/Office/Service
Repair, Service & Leasing	Goteborg, Sweden	Leased	Manufacturing/Office/Service
Repair, Service & Leasing	Houston, Texas, U.S.	Owned	Manufacturing/Office/Service
Repair, Service & Leasing	Richburg, South Carolina, U.S.	Owned	Manufacturing/Office/Service

Regulatory Environment

We are subject to federal, state, and local regulations relating to the discharge of materials into the environment, production and handling of hazardous and regulated materials, and the conduct and condition of our production facilities. We do not believe that these regulatory requirements have had a material effect upon on our capital expenditures, earnings, or competitive position. We are not anticipating any material capital expenditures in 2023 2024 that are directly related to regulatory compliance matters. We are also not aware of any pending or potential regulatory changes that would have a material adverse impact on our business.

Item 3. Legal Proceedings

In connection with our divestiture of our Cryobiological cryobiological products business on October 1, 2020, Chart retained certain potential liabilities, including claims in connection with our following litigation. During the second quarter of 2018, Chart was named in lawsuits (including lawsuits filed in the U.S. District Court for the Northern District of California) filed California and the San Francisco Superior Court during the second quarter of 2018 against Chart and other defendants with respect to the alleged failure of a stainless steel cryobiological storage tank (model MVE 808AF-GB) at the Pacific Fertility Center in San Francisco, California. In May and June of 2021, the first five of the federal lawsuits went to trial, and on June 10, 2021, the jury reached a verdict against Chart in favor of the plaintiffs in those lawsuits in the amount of \$14.9 million, of which 90% (\$13.5 million) is attributable to Chart. Subsequent to the initial verdict, the Company filed various post-trial motions and appeals based on various factors, including the Company's belief that the allocation of fault was not supported by the record, the award of emotional distress damages, the exclusion of certain evidence of trial, and our contention that plaintiffs failed to present sufficient evidence to prove each element of their claim.

In the second quarter 2021, we recorded a loss contingency accrual and corresponding charge to net income for \$13.5 million in the amount of the jury verdict attributable to Chart, with an offsetting \$13.5 million loss recovery receivable for anticipated insurance proceeds, with a corresponding credit to net income.

On June 13, 2022, Starr Indemnity & Liability Company ("Starr") filed a complaint for declaratory relief and reimbursement in the U.S. District Court for the Northern District of California seeking a determination of what obligation, if any, Starr has to indemnify Chart in connection with the Pacific Fertility Center actions. On June 14, 2022, Chart filed its own declaratory judgment action against Starr in the U.S. District Court for the Northern District of Georgia seeking a determination that Starr has a duty to indemnify the Company in connection with the Pacific Fertility Center actions.

As previously disclosed, the Company has been engaged in ongoing discussions in an effort to establish a settlement framework for the various lawsuits (both in the U.S. District Court for the Northern District of California, as well as the San Francisco Superior Court) associated with the Pacific Fertility Center. After substantial discussions with the various constituent parties, the Company reached a preliminary settlement in late January 2023 to resolve these 217 cases. This preliminary settlement will resolve cases. In the prior verdict for the initially tried cases, which is on appeal, as well as the previously disclosed Starr insurance dispute, and remains subject to the satisfaction fourth quarter of certain conditions, which 2022, the Company currently anticipates occurring as early as March 2023. The Company has taken recorded a loss contingency accrual of \$305.6 million \$305.6 and a related loss receivable of \$231.9 million \$231.9 from insurance proceeds from these combined cases, which are were recognized in our consolidated balance sheet. sheet as of December 31, 2022. The net loss of approximately \$73.0 million is \$73.0 was recognized in discontinued operations and represents represented the expected out-of-pocket payments in connection with these settlements. We continue to evaluate The settlement was finalized and funded on March 20, 2023; therefore the merits previously disclosed loss contingency accrual and related loss receivable are no longer recorded as of the sole remaining lawsuit that is not included in the preliminary settlement in light of the information available. Based on the status of that lawsuit, a current estimate of reasonably possible losses in that case cannot be made; however, the Company does not anticipate the potential exposure to be material. December 31, 2023. This preliminary settlement and the expected net out-of-pocket payments does do not reflect third party third-party recoveries which the Company will aggressively pursue is pursuing with respect to the underlying facts in these cases, and which the Company currently anticipates will result in recoveries approximating one-quarter or more of the Company's out-of-pocket, net payments.

We continue to evaluate the merits of the sole remaining lawsuit that was not included in the settlement in light of the information available. Based on the status of that lawsuit, a current estimate of reasonably possible losses in that case cannot be made; however, the Company does not anticipate the potential exposure to be material. The Company does not intend to report on this lawsuit quarterly, absent developments that would impact the materiality of the claim.

We are occasionally subject to various legal claims related to performance under contracts, product liability, taxes, employment matters, environmental matters, intellectual property, and other matters incidental to the normal course of our business. Based on our historical experience in litigating these claims, as well as our current assessment of the underlying merits of the claims and applicable insurance, if any, management believes that the final resolution of these matters, including the sole remaining Pacific Fertility Center cases case described above, will not have a material adverse effect on our financial position, liquidity, cash flows, or results of operations, except that our results of operations for any particular reporting period may be adversely affected by any potential or actual loss that is accrued in such period. Future developments may, however, result in resolution of these legal claims in a way that could have a material adverse effect.

Item 4. Mine Safety Disclosures

Not applicable.

Item 4A. Executive Officers of the Registrant*

The name, age and positions of each Executive Officer of the Company as of February 24, 2023 are as follows:

Name	Age	Position
Jillian C. (Jill) Evanko	45	Chief Executive Officer and President (Principal Executive Officer)
Joseph R. (Joe) Brinkman	53	Vice President and Chief Financial Officer (Principal Financial Officer)
Gerald F. (Gerry) Vinci	57	Vice President, Chief Human Resources Officer
Herbert G. (Herb) Hotchkiss	52	Vice President, General Counsel and Secretary
Joseph A. (Joe) Belling	53	Chief Commercial Officer
Brian P. Bostrom	49	Chief Technology Officer

* Included pursuant to Instruction 3 to Item 401(b) of Regulation S-K.

Jillian C. (Jill) Evanko was appointed Chief Executive Officer and President on June 12, 2018 and served as Chief Financial Officer from March 1, 2017 until January 14, 2019 and from August 29, 2019 until March 16, 2021. Ms. Evanko joined Chart on February 13, 2017 as Vice President of Finance. Prior to joining Chart, Ms. Evanko served as the Vice President and Chief Financial Officer of Truck-Lite Co., LLC, a manufacturer of lighting and specialty products for the truck and commercial vehicle industries, since October 2016. Prior to that, she held multiple executive positions at Dover Corporation, a diversified global manufacturer, and its subsidiaries, including the role of Vice President and Chief Financial Officer of Dover Fluids since January 2014. Prior to joining Dover in 2004, Ms. Evanko worked in valuation services at Arthur Andersen, LLP and also held audit and accounting roles for Honeywell and Sony Corporation of America. Ms. Evanko also serves as a director of Parker-Hannifin Corporation (NYSE: PH).

Joseph R. (Joe) Brinkman was appointed our Vice President and Chief Financial Officer on October 1, 2021. Prior to his appointment, Mr. Brinkman was Vice President and General Manager of Industrial Gas Products, the Company's largest business. In his 24 years with the Company Mr. Brinkman has held various roles including Materials Manager, Director of Global Sourcing and most recently Vice President & General Manager of Bulk Gas Products.

Gerald F. (Gerry) Vinci was appointed our Vice President and Chief Human Resources Officer and has served in that capacity since December 5, 2016, when he joined Chart. Mr. Vinci was designated an executive officer of Chart on August 23, 2017. Prior to joining Chart, Mr. Vinci held various executive Human Resources roles at Dover Corporation (NYSE:DOV), a diversified global manufacturer, from February 2013 to November 2016, including Vice President, Human Resources for Dover Engineered Systems and Dover Refrigeration and Food Equipment Segments. From 1997 to 2013, Mr. Vinci served in numerous Human Resources executive roles and as Senior Counsel for Harsco Corporation (NYSE:HSC). Prior to that, Mr. Vinci was an attorney for Sunoco, Inc. (NYSE:SUN).

Herbert G. (Herb) Hotchkiss was appointed Vice President, General Counsel and Secretary on March 3, 2019. Prior to joining Chart, Mr. Hotchkiss spent over 11 years at Truck-Lite Co., LLC, a manufacturer of lighting and specialty products for the truck and commercial vehicle industries, as Vice President and Corporate Counsel. Prior to joining Truck-Lite, Mr. Hotchkiss worked for Blair Corporation as its Vice President and General Counsel. Prior to joining Blair Corporation, Mr. Hotchkiss was employed as a Cleveland attorney, working as corporate associate at Calfee, Halter & Griswold LLP and Hahn, Loeser & Parks LLP.

Joseph A. (Joe) Belling was appointed Chief Commercial Officer on August 11, 2020. Prior to his appointment, Mr. Belling held various roles at Chart, most recently as President of the Chart Energy and Chemicals (E&C) segment and prior to that as President of E&C Cryogenics and VP/GM of Chart's Brazed Aluminum Heat Exchangers (BAHX) business. Prior to joining Chart, Mr. Belling served in various roles of increasing responsibility at Trane, a multi-national corporation specializing in the HVAC industry. Mr. Belling was also employed by ALTEC International, which transitioned into Chart Energy and Chemicals.

Brian P. Bostrom was appointed Chief Technology Officer on January 9, 2023. Mr. Bostrom joined Chart in 1994. During his 28 years with the Company, Mr. Bostrom has held numerous engineering roles, including his most recent role of President of Global Engineering. As Chief Technology Officer, Mr. Bostrom will have responsibility for all global engineering activities and advancement and commercialization of global product applications across the Company. He will also continue to be a leader in developing the Company's engineering depth and capabilities. Mr. Bostrom holds an engineering degree from the University of Minnesota, is a member of the Compressed Gas Association and a member of the 2019 inaugural class of Chart Fellows.

PART II

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

Chart's common stock is traded on the New York Stock Exchange under the symbol "GTLS." As of February 1, 2023 January 31, 2024, there were 180 203 holders of record of our common stock. Since many holders hold shares in "street name," we believe that there are a significantly larger number of beneficial owners of our common stock than the number of record holders.

Apart from the dividend requirements associated with the Series B Mandatory Convertible Preferred Stock that we issued to fund a portion of the Acquisition, we do not currently intend to pay any cash dividends on our common stock, and instead intend to retain earnings, if any, for debt reduction, organic capital expenditures for productivity and capacity and potential acquisitions. The amounts available to us to pay future cash dividends may be restricted by our 2026 Credit Facilities to the extent our pro forma leverage ratio exceeds certain targets. Any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions, and other factors that our board of directors may deem relevant.

Cumulative Total Return Comparison

Set forth below is a line graph comparing the cumulative total return of a hypothetical investment in the shares of common stock of Chart with the cumulative return of a hypothetical investment in each of the S&P MidCap 400 Index, S&P SmallCap 600 Index and our current and previous Peer Group Index Indexes based on the respective market prices of each such investment on the dates shown below, assuming an initial investment of \$100 on December 31, 2017 December 31, 2018, including reinvestment of dividends, if any.

1801

		December 31,					
		2017	2018	2019	2020	2021	2022
		December 31,					December 31,
		2018					2023
Chart Industries, Inc.	Chart Industries, Inc.	\$100.00	\$138.78	\$144.02	\$251.37	\$340.35	\$245.90
S&P MidCap 400 Index							
S&P SmallCap 600 Index	S&P SmallCap 600 Index	100.00	91.48	112.28	124.90	158.30	132.74
Peer Group Index		100.00	90.10	119.62	143.10	164.48	171.09
Peer Group Index - Current							
Peer Group Index - Previous							

The cumulative total return comparison presents both the S&P MidCap 400 Index and S&P SmallCap 600 Index. During 2023, we transitioned from the S&P SmallCap 600 Index to the S&P MidCap 400 Index, which better aligns to the performance of our peers.

We select the peer companies that comprise the Peer Group Index solely on the basis of objective criteria. These criteria result in an index composed of oil field equipment/service and other comparable industrial companies. During 2023, we modified our peer group to include certain competitors of Howden. The cumulative total return comparison presents both the current and previous Peer Group Index. The current Peer Group Index is comprised of Air Products and Chemicals, Inc., Atlas Copco AB, Baker Hughes Company, Barnes Group Inc., Burckhardt Compression Holding AG, ChampionX Corporation, Cheniere Energy, Inc., CIMC Enric Holdings Limited, CNH Industrial N.V.,

EnPro Inc., ESCO Technologies Inc., Franklin Electric Co., Inc., IDEX Corporation, ITT Inc., New Fortress Energy LLC, NIKKISO CO., LTD., Plug Power Inc., SPX Corporation and Worthington Enterprises, Inc. The previous Peer Group Index is comprised of Air Products and Chemicals, Inc., Baker Hughes Company, Barnes Group Inc., ChampionX Corporation, Cheniere Energy, Inc., CIMC Enric Holdings Limited, CNH Industrial N.V., EnPro Industries, Inc., ESCO Technologies Inc., Franklin Electric Co., Inc., Harsco Corporation, IDEX Corporation, ITT Inc., New Fortress Energy LLC, NIKKISO CO., LTD., Plug Power Inc., SPX Corporation and Worthington Industries, Enterprises, Inc.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Period	Issuer Purchases of Equity Securities			
	Total Number of Shares		Total Number of Shares	Approximate Dollar Value of
	Purchased ⁽¹⁾	Average Price Paid Per Share ⁽¹⁾	Purchased As Part of Publicly Announced Plans or Programs	Shares that May Yet Be Purchased Under the Plans or Programs
October 1 — 31, 2022	10	\$ 196.77	—	\$ —
November 1 — 30, 2022	1,123	129.00	—	—
December 1 — 31, 2022	—	—	—	—
Total	1,133	\$ 129.56	—	\$ —

Period	Issuer Purchases of Equity Securities			
	Total Number of Shares		Total Number of Shares	Approximate Dollar Value of
	Purchased ⁽¹⁾	Average Price Paid Per Share ⁽¹⁾	Purchased As Part of Publicly Announced Plans or Programs	Shares that May Yet Be Purchased Under the Plans or Programs
October 1 — 31, 2023	—	\$ —	—	\$ —
November 1 — 30, 2023	13	127.28	—	—
December 1 — 31, 2023	51	130.16	—	—
Total	64	\$ 129.58	—	\$ —

⁽¹⁾ Includes shares of common stock surrendered to us during the fourth quarter of 2022 2023 by participants under our share-based compensation plans to satisfy tax withholding obligations relating to the vesting or payment of equity awards for an aggregate purchase price of approximately \$146,800. \$8,300. The total number of shares repurchased represents the net shares issued to satisfy tax withholding. All such repurchased shares were subsequently retired during the three months ended December 31, 2022 December 31, 2023.

Item 6. [Reserved]

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

The following discussion of our results of operations and financial condition should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements. Actual results may differ materially from those discussed below. See "Forward-Looking Statements" at the end of this discussion and Item 1A. "Risk Factors" for a discussion of the uncertainties, risks and assumptions associated with this discussion.

Overview

We are a leading independent global manufacturer of highly engineered cryogenic equipment servicing multiple applications leader in the industrial design, engineering, and manufacturing of process technologies and equipment for gas and liquid molecule handling for the Nexus of Clean™ – clean energy markets, power, clean water, clean food, and clean industrials, regardless of molecule. Our unique product and solution portfolio across stationary and rotating equipment is used in every phase of the liquid gas supply chain, including upfront engineering, service and repair. Being at the forefront of the clean energy transition, repair from installation to preventive maintenance and digital monitoring. Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas CO2 Capture and water treatment, carbon capture among other applications. We are committed to excellence in environmental, social and corporate governance (ESG) issues both for our company as well as our customers. With 29 64 global manufacturing locations and over 50 service centers from the United States to Asia, Australia, India, Europe and Europe, South America, we maintain accountability and transparency to our team members, suppliers, customers and communities.

Macroeconomic Impacts

During 2022, we had record backlog, record sales, record gross profit and record operating income due to broad-based demand for our products, strong execution and continued pricing actions. The current conflict between Russia and Ukraine and the related sanctions imposed by countries against Russia, as well as along with the heightened tensions between the U.S United States and China are creating and recent unrest in the Middle East continue to create uncertainty in the global economy. While we do not have operations in Russia or Ukraine, we are unable to predict the impact these actions will have on the global economy or on our business, financial condition and results of operations. These events did not have a material adverse effect on our reported results for 2022, the year ended December 31, 2023, however we will continue to actively monitor in terms of their potential impact on our results of operations beyond 2022, 2023.

Environmental, Social, Governance

Chart is proud to be at the forefront of the clean energy transition as a leading provider of technology, equipment and services related to liquefied natural gas (LNG), hydrogen, biogas, carbon capture and water treatment, among other applications. We also captured have a unique offering for the Nexus of Clean™ – clean power, clean water, clean food and clean industrials as our unique offering for the Nexus of Clean™. This leadership position is possible not only because we have the broadest offering of clean innovative solutions for the various end markets we serve, but also because we are committed to global responsibility. Reporting our ESG performance is one of the ways we demonstrate accountability and transparency to our team members, suppliers, customers, shareholders and communities. Below are some highlights of our ESG efforts, and further information can be found in our third fourth Annual Sustainability report with scorecard which was released in April 2022. We intend to release our fourth annual sustainability 2023. Our fifth Annual Sustainability report with scorecard will be released in April 2023 2024.

We measure our ESG and sustainability targets and progress against them We reported a 0.52 Total Recordable Incident Rate (TRIR), a year-end record, for the year ended December 31, 2022, with emphasis on safety as our #1 priority and focus on all team members being empowered and authorized to stop work if they see an unsafe or potentially unsafe situation.

- We measure progress through the Sustainability Accounting Standards Board (SASB) and Task Force on Climate-Related Climate Related Financial Disclosures (TCFD) indices, as well as contributing to the Global Reporting Initiative (GRI) and United Nations Sustainable Development Goals (SDGs). We contribute to 10 of the 17 United Nations Sustainable Development Goals (SDGs).
- Safety: total recordable incident rate (TRIR) of 0.52 as of January 31, 2024, our lowest in our history.
- Many of our safety programs and practices reflect requirements of the ISO 45001 Occupational Health and Safety standard for management systems. Chart voluntarily certifies certain manufacturing and fabrication facilities to this internationally recognized standard to increase safety and reduce workplace risks.
- We utilize iPoint and Riskmethods analytics to proactively monitor our supply chain for proper governance in our supplier network including their climate targets and other ESG activities.
- Chart remains committed to its ambitious climate targets of 50% emission intensity reduction by 2030 and net zero emissions by 2050 and are ahead of our 2030 target in terms of progress toward it. In addition to decreasing our emissions intensity in 2022, we also managed to reduce emissions 5.8% on an absolute basis. We made plant improvements including energy efficient upgrades for various equipment – including replacement of diesel powered equipment with electric and installation of LED lighting in office spaces. In addition, we plan to achieve our targets by switching energy from fossil fuel based to carbon free supply and installing on-site renewables where applicable, as

well as continuing to participate in ongoing energy audits. At a local site level, we also continue to find ways to reduce both waste-to-landfill as well as mains water usage.

- We began tracking and reporting our global water consumption and waste recycled, an effort that speaks to our commitment to ESG transparency.
- We remain committed to our social targets:
 - Increase female representation to 40% on our management team by 2030.
 - Increase female representation to 35% in senior roles by 2030.
 - Achieve team member volunteer participation of 25% as part of our community program by 2030.

We provide our One Chart global team members with various programs and practices to support our ESG and employee-drive culture:

- We have a Global ESG Sustainability Committee, Global Safety Council, and Global Diversity & Inclusion Committee, all comprised of team member volunteers and engagement from our global locations.
 - Our Global ESG Sustainability Committee has five sub-committees focused on energy management, zero waste, electrification, renewable energy and water management. In 2023, this committee focused on sustainable global best practice and knowledge sharing between the Chart and Howden businesses.
- We have recently entered into numerous employee resource groups (ERG), including:
 - Chart Network of Women (NOW) with a sustainability-linked banking agreement mission of empowering women both personally and professionally with covenants tied local chapters globally across the United States, Europe, and Asia.
 - Chart Pride ERG supporting LGBTQIA+ team members.
 - In Q1 2024, there are planned launch dates for Chart Young Professionals and Veterans ERGs.
- Chart adopted Howden's Bright Futures community volunteering program, which is now a facet of Chart's Giving Back Program. Bright Futures is a program focused around giving back to our Green House Gas ("GHG") emission reductions' actual performance, the younger generation, with particular focus on promoting STEM.
- We have set a target to reduce our carbon intensity 30% by 2030 and have specific initiatives in place to help us meet this goal. In 2021, we made progress towards achieving our target by reducing GHG Intensity by almost 14% year-over-year.
- In terms of lowering an employee relief fund for our own emissions, we made plant improvements including energy efficient upgrades for various equipment, replacing diesel powered equipment with electric and installing LED lighting in office spaces. In 2021, Chart reduced Scope 2 emissions by 9.7%.
- Our team members raised over \$25,000 to support women in the Dress For Success campaign in March 2023. This is the third year in a row raising \$25,000 for this cause.
- Our team members raised over \$60,000 in 2023 through an internal STEptember campaign, coordinated by our finance organization.

We are our helping customers to achieve their own sustainability targets in a number of different ways whether that's through reducing the amount of plastic used in packaging to lowering greenhouse gas emissions by enabling the transition towards cleaner fuels.

- Howden's installed base of products enables the avoidance of over 245 million tons of CO2 a year. This is equivalent to removing 52 million fossil-fueled cars from the road in the same period.
- A single gas-gas heater is estimated to avoid 64,000 tons of CO2 emissions from flue gas. Our current gas-gas heater installed base (doubled since 2022) saves approximately 32 million tons of CO2 per year.

- Our ChartWater team treats over 4.5 billion gallons of water a day in the United States and provides clean water to approximately a billion people worldwide daily.
- We helped to eliminate nearly 280 million of PET (plastic) used in water bottles in the United States. Our liquid nitrogen doser enables customers to produce 432,000,000 cans of water annually (instead of plastic bottles) which avoids production of 8.21 billion grams of plastic per year.
- In 2023, Chart products produced about 65 million tons of LNG to replace coal fired power generation (non-U.S.).
- In 2023, Chart products reduced over 800 million liters of diesel used by over-the-road trucks.
- Ventsim™ DESIGN is used by over 2,800 mines, universities, consultants, government, and research organizations in 70 countries. Ventsim™ CONTROL has been successfully installed on over 30 mine sites in 5 continents. For example, a mining customer is seeing a 56% reduction in underground ventilation electricity costs by utilizing Ventsim™ CONTROL for mine optimization.

Our governance supports our ESG focus

- We have an independent Board of Directors that is comprised of **seven ten** directors (four of our **seven ten** directors are female and four of our **seven ten** are diverse) and governed with a separate independent Chairwoman and CEO.
- We **regularly** hold **quarterly** reviews on ESG **and cybersecurity** with our Board of Directors.
- We link our executives and their direct reports short-term incentive payout (25% of the strategic and operational goals) to a metric driven, percentage-reduction ESG metric, and have done this for **two years, three years (and continue to do in 2024)**.
- **Our team volunteers in their communities with a focus on supporting children and families, ending hunger and improving health.** We offer every team member worldwide one paid day off each year to volunteer in our communities, and we donated over \$120,000 to charities in the communities we work in during the **2021 year, communities**. In 2021, Chart started matching employee donations up to \$250 per employee per year to charitable organizations.
- **We have an employee relief fund for our own team members that need assistance.**
- Our team members raised over \$30,000 in 2021 and \$25,000 in 2022 to support women through Dress For Success.
- In **2021, 2023**, we received the following ESG-oriented recognition:
 - **World LNG Award for Energy Transition 2021 Finalist**
 - **Gastech 2021 Emission Reduction Champion – Organization of the Year Award Winner**
 - **Gastech 2021 Organisation Championing Diversity & Inclusion Finalist**
 - **Gastech 2021 Engineering Partnership of the Year Finalist**
 - **S&P Global Platts Energy Awards Excellence in LNG Finalist (2021)**
 - **S&P Global Platts Energy Awards Corporate Social Responsibility (Diversified) Award Finalist (2021) Impact – Comprehensive Portfolio finalist (2023)**
- In 2022, we received the following ESG-oriented recognition:
 - **S&P Global Platts Energy Awards 2022 “Energy Transition - LNG” Finalist**
 - **S&P Global Platts Energy Awards 2022 “Deal Hydrogen Technology of the Year - Strategic” Finalist finalist in the 2023 Hydrogen Future Awards**
- **2022 Frost & Sullivan Institute Enlightened Growth Leadership Award Named to Newsweek’s America’s Most Responsible Companies 2024 list, demonstrating our commitment to corporate social responsibility, sustainability, and giving back to our communities.**
- **goBeyondProfit’s 2022 “In Good Company Report - One 2023 Highlights**

On March 17, 2023, we completed the acquisition of Howden (the “Howden Acquisition”), a leading global provider of mission critical air and gas handling products and services, from affiliates of KPS Capital Partners, LP. Results of operations include results of Howden from the **Most Generous Companies in Georgia (USA)**

2022 Highlights

date of acquisition and exclude Roots™ (“Roots”) business financial results for our entire ownership period of March 17, 2023 through the divestiture date, August 18, 2023. Record order activity, mainly driven by the impact of the Howden Acquisition, contributed to record ending total backlog of \$4,278.8 million as of December 31, 2023 compared to \$2,338.1 million as of December 31, 2022 compared to \$1,190.1 million as of December 31, 2021, representing an increase of **\$1,148.0 million \$1,940.7 million** or **96.5% 83.0%**, which reflects the broad-based demand we continue to see year-over-year across our product categories. The increase in backlog was largely driven by record orders for the year ended **December 31, 2022 December 31, 2023** of **\$2,779.9 million \$4,140.2 million** compared to **\$1,676.1 million \$2,779.9 million** for the year ended **December 31, 2021 December 31, 2022** representing an increase of **\$1,103.8 million \$1,360.3 million** or **65.9% 48.9%**. Record order intake in our Heat Transfer Systems segment of \$1,417.6 million for 2022 compared to \$312.0 million for 2021, was mainly driven by higher order intake for LNG including big and small-scale LNG, as well as floating LNG during 2022. Record order intake in our Repair, Service & Leasing segment of **\$1,100.8 million in 2023 compared to \$218.9 million in 2022, compared to \$180.6 million in 2021**, was mainly driven by higher order intake within lifecycle services, the inclusion of the Howden aftermarket fans business and our leasing business, LNG retrofit. Record orders in our Specialty Products segment for **2022 2023** of **\$665.5 million \$1,341.6 million** compared to **\$648.6 million \$665.5 million** for **2021 2022** were mainly driven by strong order intake for hydrogen and helium, liquefaction, space exploration, water treatment, carbon capture and other specialty applications. Heat Transfer Systems segment backlog totaled a record **\$1,716.5 million as of December 31, 2023 compared to \$1,300.1 million as of December 31, 2022 compared to \$370.4 million as of December 31, 2021**. Specialty Products segment backlog totaled a record **\$1,631.1 million as of December 31, 2023, compared to \$645.9 million as of December 31, 2022, compared to \$438.2 million as of December 31, 2021**. Cryo Tank Solutions segment backlog totaled **\$361.9 million as of December 31, 2023, compared to \$371.0 million as of December 31, 2022, also a record high.**

Consolidated sales increased to a record **\$3,352.5 million in 2023 from \$1,612.4 million in 2022, from \$1,317.7 million in 2021**, representing an increase of **\$294.7 million \$1,740.1 million** or **22.4% (20.3% organically), 107.9%**. The consolidated sales increase was bolstered by sales from the Howden Acquisition. This increase was mainly driven by growth in our Repair, Service & Leasing segment, increased sales in our Heat Transfer Systems segment on favorable sales in process systems related to big and small-scale LNG liquefaction and floating LNG, as well as gains within our Cryo Tank Solutions segment on favorable sales in storage equipment general industrials and mobile equipment, within our Repair, Service & Leasing segment on favorable sales in parts, repairs, and services, aftermarket fans, aftermarket air cooled heat exchangers and in our

lifecycle business and within our Specialty Products segment on favorable sales in hydrogen and helium applications, energy recovery, water treatment, space applications, food & beverage applications metals, mining and carbon capture. The consolidated sales increase was bolstered

by sales from acquisitions. Consolidated gross profit in 2022 2023 increased by \$83.2 million (\$74.6 million organically) \$633.0 million from \$324.2 million \$407.4 million to a record \$407.4 million \$1,040.4 million or 25.7% 155.4% compared to 2021. 2022. Gross profit margin of 31.0% in 2023 increased from 25.3% in 2022 increased from 24.6% in 2021. 2022. The increase in gross profit and gross profit margin for 2022 2023 compared to 2021 2022 was mainly driven by product mix and also demonstrates our progress in improvement in our margin profile as we continued to take further pricing and cost reduction actions.

Consolidated SG&A expenses as a percentage of consolidated sales for 2022 decreased 2023 increased by 1.6% 1.2% as compared to 2021 2022 primarily due to the effect of cost reduction actions we took integration related costs incurred in 2022.

Outlook

As previously announced, in November of 2022 we signed a definitive agreement to acquire Howden, a leading global provider of mission critical air and gas handling products and services. The combination of Chart and Howden furthers our global leadership position in highly engineered process technologies and products serving the Nexus of Clean™ – clean power, clean water, clean food and clean industrials. We are currently pursuing divestitures of two significant product lines related to the combined business. While these proposed divestitures are at preliminary stages and there can be no assurances of the completion of these activities, we continue to target a completion of these within the next three to six months and continue to anticipate combined proceeds of approximately \$500 million from these divestitures.

We are reiterating our Chart standalone 2023 sales outlook range of \$2.10 billion to \$2.20 billion, which includes only big LNG projects that are in backlog as of December 31, 2022. We are confident in achieving this sales range, underpinned by five key themes: (1.) It is not unusual for project revenue to shift between months. We anticipate realizing pushed fourth quarter 2022 revenue in 2023 based on customer and project timing. (2.) Our outlook does not include any additional mid-size or large project orders between now and the end of the first half 2023, which could provide additional revenue in the second half of 2023. (3) Even though we are seeing early end market improvement in HLNG vehicle tank sales, our forecast for HLNG vehicle tanks is flat with 2022. (4.) We head into 2023 with record backlog of \$2.34 billion. As of December 31, 2022, we had approximately 60% of the full year 2023 sales outlook already in backlog, which is meaningfully higher than in prior years. (5.) We have existing capacity to delivery on our backlog as well as any potential, high probability, new orders that could materialize throughout the year.

Our guidance does not include the operational impact of the pending acquisition with Howden, which is expected to close within the next 45 days. We continue to invest in our automation, process improvement, and productivity activities across Chart, with total anticipated 2023 capital expenditures spend of \$60 million to \$65 million for our existing business.

Operating Results

The following table sets forth the percentage relationship that each line item in our consolidated statements of income represents to sales for the years ended December 31, 2022 December 31, 2023, 2021 2022, and 2020 (dollars in millions): 2021:

		2022	2021	2020			2023	2022	2021
		2023					2023	2022	2021
Sales	Sales	100.0 %	100.0 %	100.0 %	Sales	100.0 %	100.0 %		
Cost of sales	Cost of sales (1)	74.7	75.4	71.8					
Gross profit	Gross profit	25.3	24.6	28.2					
Selling, general and administrative expenses (2) - (4)		13.3	14.9	15.1					
Selling, general and administrative expenses (2)-(4)									
Amortization expense	Amortization expense	2.6	3.0	3.9					
Asset impairments (5)		—	—	1.4					
Operating income	Operating income	9.4	6.7	7.8					
Acquisition related finance fees	Acquisition related finance fees	2.3	—	—					
Interest expense, net	Interest expense, net	1.8	0.8	1.5					

Financing costs amortization ⁽⁵⁾				
Loss on extinguishment of debt				
Unrealized loss (gain) on investment in equity securities				
Financing costs amortization ⁽⁶⁾	0.2	0.6	0.4	
Unrealized gain on investment in equity securities	(0.8)	(0.2)	(1.1)	
Realized gain on investment in equity securities	—	(0.2)	—	
Foreign currency loss	—	0.1	0.1	
Gain on bargain purchase	—	—	(0.4)	
Other (income) expense	(0.1)	—	0.2	
Realized gain on investment in equity securities				
Realized gain on investment in equity securities				
Foreign currency (gain) loss				
Other (income) expense, net				
Income tax expense, net	1.0	1.0	1.3	
Net income from continuing operations	5.1	4.6	6.0	
Income from discontinued operations, net of tax	(3.6)	—	20.3	
Loss from discontinued operations, net of tax				
Net income	1.6	4.6	26.3	
Income attributable to noncontrolling interests, net of taxes	0.1	0.1	0.1	
Net income attributable to Chart Industries, Inc.	1.5	4.5	26.2	

Less: Income attributable to noncontrolling interests of continuing operations, net of taxes

Net income attributable to

Chart Industries

- (1) Cost of sales includes restructuring costs/(credits)/costs of \$0.5, \$(1.0), \$2.6 and \$5.7 \$2.6 for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively.
- (2) Selling, general and administrative expenses includes include restructuring costs of \$0.9 \$13.0, \$0.0 and \$7.9 \$0.9 for the years ended December 31, 2021 December 31, 2023, 2022 and 2020, 2021, respectively.
- (3) Includes deal-related and integration costs of \$38.5 and \$17.6 for the year years ended December 31, 2022. December 31, 2023 and 2022.
- (4) Includes share-based compensation expense of \$10.6, \$11.2 \$12.6, \$10.6 and \$8.6, \$11.2, representing 0.7% 0.4%, 0.8% 0.7% and 0.7% 0.8% of sales, for the years ended December 31, 2022 December 31, 2023, 2022 and 2021, and 2020, respectively.
- (5) Includes \$16.0 impairment of our trademarks and trade names indefinite-lived intangible assets related to the AXC business in our Heat Transfer Systems segment for the year ended December 31, 2020.
- (6) In conjunction with the amendment of our credit facilities in 2021, we recognized charges of \$4.1 in unamortized debt issuance cost write offs associated with previous credit facilities and new debt issuance costs, which are classified as financing costs amortization in our consolidated income statement for the year ended December 31, 2021.

Consolidated Results for the Years Ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021

The following table includes key metrics used to evaluate our business and measure our performance and represents selected financial data for our operating segments for the years ended December 31, 2022 December 31, 2023, 2022 and 2021 and 2020 (dollars (dollar amounts in millions)). Further detailed information regarding our operating segments is presented in Note 4, "Segment and Geographic Information," of the consolidated financial statements included under Item 15 "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Selected Segment Financial Information

		Year Ended December 31,			Year Ended December 31,			
		2022	2021	2020	2023	2022		2021
Sales	Sales							
Cryo Tank Solutions								
Cryo Tank Solutions								
Cryo Tank Solutions	Cryo Tank Solutions	\$ 504.3	\$ 447.4	\$ 415.8				
Heat Transfer Systems	Heat Transfer Systems	462.7	262.7	369.8				
Specialty Products	Specialty Products	448.3	432.9	242.6				
Repair, Service & Leasing	Repair, Service & Leasing	209.6	187.0	158.3				
Intersegment eliminations	Intersegment eliminations	(12.5)	(12.3)	(9.4)				
Consolidated	Consolidated	\$1,612.4	\$1,317.7	\$1,177.1				
Gross Profit	Gross Profit							
Cryo Tank Solutions	Cryo Tank Solutions	\$ 98.7	\$ 93.5	\$ 99.5				
Cryo Tank Solutions								
Cryo Tank Solutions								
Heat Transfer Systems	Heat Transfer Systems	90.6	35.6	93.7				

[illegible]

Interest expense, net for the year ended December 31, 2023 and 2022 was \$271.9 million and \$28.8 million, respectively. The increase in interest expense, net, is primarily due to higher borrowings outstanding, specifically our senior secured notes due 2030 and senior unsecured notes due 2031, both issued on December 22, 2022 with interest payable semi-annually on January 1 and July 1 of each year, commencing July 1, 2023, as well as borrowings related to our term loan, drawn on March 17, 2023 for the Howden Acquisition and an additional incremental term loan drawn on June 30, 2023, compared to borrowings outstanding during the same period in 2022. The increase in interest expense, net was also driven by higher average interest rates during the year ended December 31, 2023. The increase in interest expense, net was partially offset by interest income of \$21.5 million earned primarily from deposits of proceeds from the senior secured notes due 2030, senior unsecured notes due 2031, common stock and preferred stock offerings held until the consummation of the Howden Acquisition, interest income on sales-type leases of \$3.3 million, and \$1.6 million interest income from our cross-currency swaps entered into on September 16, 2022. Interest expense, net for the year ended December 31, 2023 and 2022 included \$147.2 million and \$23.4 million, respectively, in interest related to borrowings on our current senior secured revolving credit facility due 2026 and previous

senior secured revolving credit facility and term loan due 2030. Interest expense, net for the year ended December 31, 2023 related to borrowings on our senior secured notes due 2030 and senior unsecured notes due 2031 was \$109.7 million and \$48.6 million, respectively. Interest expense, net for the year ended December 31, 2022 related to borrowings on our senior secured notes due 2030 and senior unsecured notes due 2031 was \$3.0 million and \$1.3 million, respectively. Interest expense, net for the year ended December 31, 2023 included \$2.4 million of 1.0% cash interest expense related to our convertible notes due November 2024. Interest expense, net for the year ended December 31, 2022 included \$4.0 million of 1.0% cash interest expense related to our convertible notes due November 2024.

For 2023 and 2022, financing costs amortization was \$17.2 million and \$2.9 million, respectively. The increase of \$14.3 million was primarily due to the amendment of our senior secured revolving credit facility due 2026, the issuance of senior secured notes due 2030 and senior unsecured notes due 2031 during the fourth quarter of 2022 as well as the issuance of incremental term loans on March 17, 2023 and June 30, 2023, all of which increased deferred debt issuance costs.

Loss on Extinguishment of Debt

As a result of the events of both the October 2, 2023 Credit Agreement amendment and the December 4, 2023 partial prepayment of the term loans due March 2030, we recognized a loss on extinguishment of debt of \$7.8 million for the year ended December 31, 2023. For further information, refer to Note 10, "Debt and Credit Arrangements" of this Annual Report on Form 10-K.

Unrealized Loss (Gain) On Investments In Equity Securities

During 2023, we recognized an unrealized loss on investments in equity securities of \$14.4 million, which was driven by an unrealized loss of \$12.7 million on the mark-to-market adjustment of our investment in McPhy (Euronext Paris: MCPHY – ISIN: FR0011742329) ("McPhy") and a \$1.7 million unrealized loss on the mark-to-market adjustment of our investment in Stablis Energy, Inc. (NasdaqCM: SLNG) ("Stablis"). During 2022, we recognized an unrealized gain on investments in equity securities of \$13.1 million, which was driven by an unrealized gain of \$23.3 million upon remeasurement of the Svante investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$1.6 million unrealized gain on the mark-to-market adjustment of our investment in Stablis, partially offset by a \$11.8 million unrealized loss on the mark-to-market adjustment of our investment in McPhy.

Foreign Currency (Gain) Loss

For the year ended December 31, 2023, foreign currency gain was \$4.1 million, and for the year ended December 31, 2022 foreign currency gain was \$0.8 million. The variance between periods was primarily driven by fluctuations in the U.S. dollar as compared to the euro and British pound.

Income Tax Expense

Income tax expense of \$3.0 million and \$15.9 million for the years ended December 31, 2023 and 2022, respectively, represents taxes on both U.S. and foreign earnings at a combined effective income tax rate of 5.2% and 16.1%, respectively. The effective income tax rate of 5.2% for the year ended December 31, 2023 differed from the U.S. federal statutory rate of 21% due primarily to tax benefits associated with the Howden integration, release of previously booked valuation allowances, research and development credits and share-based compensation offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate.

The effective income tax rate of 16.1% for the year ended December 31, 2022 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the release of previously booked valuation allowances offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as increases in our state taxes due to expansion in new jurisdictions.

Net Income Attributable to Chart Industries, Inc. From Continuing Operations

As a result of the foregoing, net income attributable to Chart Industries, Inc. from continuing operations was \$47.9 million and \$81.6 million for 2023 and 2022, respectively.

Discontinued Operations

The financial results of the Roots business are reflected in our consolidated financial statements as discontinued operations for the years ended December 31, 2023. For further information, refer to Note 3, "Discontinued Operations and Other Businesses Sold" of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Results of Operations for the Years Ended December 31, 2022 and 2021

Sales in 2022 increased by \$294.7 million (\$258.6 million organically), from \$1,317.7 million to a record \$1,612.4 million, or 22.4%. This increase was primarily driven by growth in our Heat Transfer Systems segment on favorable sales in process systems related to big and small-scale LNG liquefaction and floating LNG, as well as gains within our Cryo Tank Solutions segment on favorable sales in storage equipment and mobile equipment, within our Repair, Service & Leasing segment on favorable sales in parts, repairs, and services, aftermarket fans, aftermarket air cooled heat exchangers and in our lifecycle business and within our Specialty Products segment on favorable sales in hydrogen and helium applications, water treatment, space applications, food & beverage applications and carbon capture.

Gross profit in 2022 increased by \$83.2 million (\$74.6 million organically) from \$324.2 million to \$407.4 million or 25.7% compared to 2021. Gross profit margin of 25.3% in 2022 increased from 24.6% in 2021. The increase in gross profit and gross profit margin for 2022 compared to 2021 was primarily driven by product mix and pricing and cost reduction actions we took for all segments overall. Restructuring (credits)/costs recorded to cost of sales were \$(1.0) million and \$2.6 million for the years ended December 31, 2022 and 2021, respectively.

Consolidated SG&A expenses increased by \$17.7 million, or 9.0% (\$8.9 million organically) during 2022, compared to the same period in 2021 primarily driven by higher employee-related costs while consolidated SG&A expenses as a percentage of consolidated sales for 2022 decreased by 1.6% as compared to 2021 primarily due to the effect of cost reduction actions we took in 2022.

Acquisition Related Finance Fees

Acquisition related finance fees for the year ended December 31, 2022 were \$37.0 million related to financing for our pending Acquisition the acquisition of Howden. There were no acquisition related finance fees for the year ended December 31, 2021.

Interest Expense, Net and Financing Costs Amortization

Interest expense, net for the year ended December 31, 2022 and 2021 was \$28.8 million and \$10.7 million, respectively. The increase in interest expense, net, is primarily due to higher borrowings outstanding and higher average interest rates during 2022 on our senior secured revolving credit facility due October 2026, as compared to borrowings outstanding and average interest rates on our previous senior secured revolving credit facility and term loan due June 2024 during 2021 as well as borrowings related to our senior secured notes due 2030 and senior unsecured notes due 2031, which were issued on December 22, 2022. The increase increase was partially offset by interest income of \$1.3 million from our cross-currency swaps entered into during 2022. Interest expense, net for the year ended December 31, 2022 included \$4.0 million \$4.0 million of 1.5% cash interest expense related to our convertible notes due November 2024. Interest expense, net for the year ended December 31, 2021 included \$2.6 million of 1.0% cash interest expense related to our convertible notes due November 2024. Interest expense, net for the year ended December 31, 2022 and 2021 included included \$23.4 million and \$9.0 million \$9.0 million, respectively, in interest related to borrowings on our current senior secured revolving credit facility due 2026 and previous senior secured revolving credit facility and term loan due 2024. Interest expense, net net for the year ended December 31, 2022 related to borrowings on our senior secured notes due 2030 and senior unsecured notes due 2031 was \$3.0 million and \$1.3 million, respectively.

For 2022 and 2021, financing costs amortization was \$2.9 million and \$8.3 million, respectively. The decrease of \$5.4 million was primarily due to the amendment of our credit facilities during the fourth quarter of 2021 and the related write off of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due June 2024 and the term loan due June 2024, respectively. In conjunction with the amendment of our credit facilities in the fourth quarter of 2021, we recorded charges to net income of \$3.8 million of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due 2024 and the term loan due June 2024 as well as \$0.3 million in new debt issuance costs resulting in a total one-time charge to net income of \$4.1 million.

Unrealized Gain On Investments In Equity Securities

During 2022, we recognized an unrealized gain on investments in equity securities of \$13.1 million, \$13.1 million, which was driven by an unrealized gain of \$23.3 million upon remeasurement of the Svante investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$1.6 million unrealized gain on the mark-to-market adjustment of our investment in Stabilis, partially offset by a \$11.8 million unrealized loss on the mark-to-market adjustment of our investment in McPhy. During 2021, we recognized an unrealized gain on investments in equity securities of \$3.2 million, which was driven by an unrealized gain of \$20.7 million upon remeasurement of the initial HTEC investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$2.2 million unrealized gain on the mark-to-market adjustment of our investment in Stabilis, partially offset by a \$19.7 million unrealized loss on the mark-to-market adjustment of our investment in McPhy.

Foreign Currency (Gain) Loss

For the year ended December 31, 2022, foreign currency gain was \$0.8 million, and for the year ended December 31, 2021 foreign currency loss was \$0.9 million. The variance between periods was primarily driven by fluctuations in the U.S dollar as compared to the euro and Chinese yuan.

Income Tax Expense

Income tax expense of \$15.9 million and \$13.5 million for the years ended December 31, 2022 and 2021, respectively, represents taxes on both U.S. and foreign earnings at a combined effective income tax rate of 16.1% and 18.2%, respectively. The effective income tax rate of 16.1% for the year ended December 31, 2022 differed from the U.S. federal statutory rate of 21% due primarily to tax benefits associated with the release of previously booked valuation allowances, research and development credits and share-based compensation offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate.

The effective income tax rate of 18.2% for the year ended December 31, 2021 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the release of previously booked valuation allowances offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as increases in our state taxes due to expansion in new jurisdictions.

Net Income Attributable to Chart Industries, Inc. From Continuing Operations

As a result of the foregoing, net income attributable to Chart Industries, Inc. from continuing operations was \$81.6 million and \$59.1 million for 2022 and 2021, respectively. Net income attributable to Chart common stockholders after discontinued operations was \$22.6 million.

Results of Operations for the Years Ended December 31, 2021 and 2020

Sales in 2021 increased by \$140.6 million (\$70.9 million organically), from \$1,177.1 million to \$1,317.7 million, or 11.9%. This increase was primarily driven by growth in our Specialty Products segment on favorable sales in hydrogen and helium applications, HLNG vehicle tanks, water treatment equipment sales and food & beverage applications, within our Cryo Tank Solutions segment on favorable sales in mobile equipment, engineered tanks and storage systems, and within our Repair, Service & Leasing segment on favorable sales in our leasing business. This increase was partially offset by softness in demand for midstream and upstream compression equipment and timing of sales recognized relative to Calcasieu Pass within our Heat Transfer Systems segment.

Gross profit in 2021 decreased by \$7.9 million (\$32.6 million decrease organically) from \$332.1 million to \$324.2 million or 2.4% compared to 2020. Gross profit margin of 24.6% in 2021 decreased from 28.2% in 2020. The decrease in gross profit margin for 2021 compared to 2020 was primarily driven by macroeconomic conditions as our price increases lagged more than the anticipated rapidly accelerating material prices and freight costs for all segments overall and Calcasieu Pass volume mix which drove higher margins in 2020 in our Heat Transfer Systems segment, partially offset by higher gross profit margins within certain recently acquired businesses. Restructuring costs recorded to cost of sales were \$2.6 million and \$5.7 million for the years ended December 31, 2021 and 2020, respectively.

Consolidated SG&A expenses increased by \$18.6 million, or 10.4% during 2021 compared to the same period in 2020 primarily driven by a ramp up in our Specialty Products business which drove higher SG&A expenses in the segment, SG&A expenses related to acquisitions and higher share-based compensation expense in Corporate, partially offset by lower SG&A expenses in our Heat Transfer Systems segment due to lower employee-related costs and in our Cryo Tank Solutions segment due to a \$2.6 million gain on sale of a facility in China included in SG&A expenses for the year ended December 31, 2020. Furthermore, lower restructuring costs were recorded to consolidated SG&A expenses, which were \$0.1 million and \$2.4 million for the years ended December 31, 2021 and 2020, respectively.

Asset Impairments

We recorded an impairment loss of \$16.0 million during 2020 relative to our \$55.0 million trademarks and trade names indefinite-lived intangible asset of our AXC business ("AXC Intangible Asset") in our Heat Transfer Systems segment. Industry-wide softness in demand for midstream and upstream compression equipment represented impairment indicators requiring us to re-evaluate the fair value of the AXC Intangible Asset. We determined the fair value of the AXC Intangible Asset under the relief-from-royalty method and conducted an impairment test as defined in the Critical Accounting Estimates section. We determined that the fair value of the AXC Intangible Asset was \$39.0 million and impaired the AXC Intangible Asset by a value equal to the difference in the carrying amount and calculated fair value.

Interest Expense, Net and Financing Costs Amortization

Interest expense, net for the year ended December 31, 2021 and 2020 was \$10.7 million and \$17.7 million, respectively. The decrease in interest expense, net, is primarily due to lower borrowings outstanding on our term loan due June 2024 during 2021 as compared to 2020. Furthermore, we no longer recognize interest accretion of convertible notes discount due to a change in accounting principle adopted at the beginning of fiscal year 2021 whereas we recognized \$8.0 million in interest accretion expense in 2020. For further information regarding the change in accounting principle, refer to Note 2, "Significant Accounting Policies" in this report. Interest expense, net for both the years ended December 31, 2021 and 2020 included \$2.6 million of 1.0% cash interest and \$9.0 million and \$7.0 million in interest related to borrowings on our previous and current senior secured revolving credit facility, respectively.

For 2021 and 2020, financing costs amortization was \$8.3 million and \$4.3 million, respectively. The increase of \$4.0 million was primarily due to the amendment of our credit facilities during the fourth quarter of 2021 and the related write off of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due June 2024 and the term loan due June 2024, respectively. In conjunction with the amendment of our credit facilities, we recorded charges to net income of \$3.8 million of the unamortized deferred debt issuance costs associated with the senior secured revolving credit facility due 2024 and the term loan due June 2024 as well as \$0.3 million in new debt issuance costs resulting in a total one-time charge to net income of \$4.1 million.

Unrealized Gain On Investments In Equity Securities

During 2021, we recognized an unrealized gain on investments in equity securities of \$3.2 million, which was driven by an unrealized gain of \$20.7 million upon remeasurement of the initial HTEC investment due to an observable price change in an orderly transaction for similar instruments of the same issuer and a \$2.2 million unrealized gain on the mark-to-market mark-to-market adjustment of our investment in Stabilis, partially offset by a \$19.7 million unrealized loss on the mark-to-market adjustment of our investment in McPhy. During 2020, we recognized an unrealized gain of \$17.0 million on the mark-to-market adjustment of our investment in McPhy, partially offset by a \$2.9 million unrealized loss on the mark-to-market adjustment of our investment in Stabilis.

Realized Gain on Investment In Equity Securities

On December 14, 2021 we completed the acquisition of the remaining 85% of the shares of Earthly Labs. On the acquisition date, we recognized a gain of \$2.6 million \$2.6 on the remeasurement of our initial 15% investment, which is was recorded as realized gain on investment in equity securities in the consolidated statement of income for the year ended December 31, 2021.

Foreign Currency (Gain) Loss

Foreign For the year ended December 31, 2022, foreign currency losses were \$0.9 million in both of gain was \$0.8 million, and for the years year ended December 31, 2021 and 2020. Foreign foreign currency fluctuates due to exchange rate volatility, especially with respect loss was \$0.9 million. The variance between the periods was primarily driven by fluctuations in the U.S. dollar as compared to the euro and Chinese yuan.

Gain on Bargain Purchase

As a result of the October 13, 2020 Alabama Trailers acquisition, we recorded a bargain purchase gain of \$5.0 million for the year ended December 31, 2020.

Income Tax Expense

Income tax expense of \$13.5 million \$15.9 million and \$14.9 million \$13.5 million for the years ended December 31, 2021 December 31, 2022 and 2020, 2021, respectively, represents taxes on both U.S. and foreign earnings at a combined effective income tax rate of 18.2% 16.1% and 17.5% 18.2%, respectively. The effective income tax rate of 18.2% 16.1% for the year ended December 31, 2021 December 31, 2022 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the release of previously booked valuation allowances offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as increases in our state taxes due to expansion into new jurisdictions.

The effective income tax rate of 17.5% 18.2% for the year ended December 31, 2020 December 31, 2021 differed from the U.S. federal statutory rate of 21% primarily due to tax benefits associated with share-based compensation and the Alabama Trailers bargain purchase gain offset by the effect of income earned by certain of our foreign entities being taxed at higher rates than the federal statutory rate as well as losses incurred by certain of our Chinese operations for which no benefit was recorded.

Net Income Attributable to Chart Industries, Inc. From Continuing Operations

As a result of the foregoing, net income attributable to Chart Industries, Inc. from continuing operations was \$81.6 million and \$59.1 million for 2022 and \$68.9 million for 2021, and 2020, respectively.

Discontinued Operations

The financial results of our cryobiological products business are reflected in our consolidated financial statements as discontinued operations for the years ended December 31, 2022 and December 31, 2020 including the net out-of-pocket settlement amounts in connection with the PFC litigation, as described in Part I, Item 3. Legal Proceedings described herein. For further information, refer to Note 3, "Discontinued Operations."

Segment Results for the Years Ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021

Our reportable and operating segments include: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. Corporate includes operating expenses for executive management, accounting, tax, treasury, corporate development, human resources, information technology, investor relations, legal, internal audit, and risk management. Corporate support functions are not currently allocated to the segments. For further information, refer to Note 4, "Segment and Geographic Information" of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K. The following tables include key metrics used to evaluate our business and measure our performance and represents selected financial data for our operating segments for the years ended December 31, 2022 December 31, 2023, 2022 and 2021 and 2020 (dollars (dollar amounts in millions):

Cryo Tank Solutions—Results of Operations for the Years Ended December 31, 2023 and 2022

	Year Ended December 31,		2023 vs. 2022	
	2023	2022	Variance (\$)	Variance (%)
Sales	\$ 640.8	\$ 504.3	\$ 136.5	27.1 %
Gross Profit	132.0	98.7	33.3	33.7 %
Gross Profit Margin	20.6 %	19.6 %		
SG&A Expenses	\$ 70.9	\$ 41.8	\$ 29.1	69.6 %
SG&A Expenses (% of Sales)	11.1 %	8.3 %		
Operating Income	\$ 54.5	\$ 54.0	\$ 0.5	0.9 %
Operating Margin	8.5 %	10.7 %		

Cryo Tank Solutions segment sales increased by \$136.5 million during 2023 as compared to 2022 to \$640.8 million. As mentioned in the results of operations above, this increase was mainly driven by favorable sales in general industrials. The increase in the sales was also partially driven by the impact of the Howden Acquisition.

Cryo Tank Solutions segment gross profit increased by \$33.3 million during 2023 as compared to 2022 primarily due to higher volume, while gross profit margin increased 100 basis points compared to 2022 due to improved cost conditions in 2023. The increase in gross profit was also partially driven by the impact of the Howden Acquisition.

Cryo Tank Solutions SG&A expenses increased during 2023 as compared to 2022 while SG&A expenses as a percentage of sales increased by 280 basis points. The increase in SG&A expenses was mainly due to employee and integration related costs driven by the Howden Acquisition.

Cryo Tank Solutions—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 504.3	\$ 447.4	\$ 56.9	12.7 %
Gross Profit	98.7	93.5	5.2	5.6 %
Gross Profit Margin	19.6 %	20.9 %		
SG&A Expenses	\$ 41.8	\$ 38.1	\$ 3.7	9.7 %
SG&A Expenses (% of Sales)	8.3 %	8.5 %		
Operating Income	\$ 54.0	\$ 52.9	\$ 1.1	2.1 %
Operating Margin	10.7 %	11.8 %		

Cryo Tank Solutions segment sales increased by \$56.9 million during 2022 as compared to 2021 to a record \$504.3 million. This increase As mentioned in the results of operations above, this increase was mainly driven by favorable sales in storage equipment in the U.S. United States and Europe and mobile equipment in the U.S. United States.

Cryo Tank Solutions segment gross profit increased by \$5.2 million during 2022 as compared to 2021, primarily due to higher volume, while and gross profit margin decreased by 130 basis points. The decrease in gross profit margin was mainly driven by higher material prices and higher labor costs due to macroeconomic conditions.

Cryo Tank Solutions SG&A expenses increased during 2022 as compared to 2021 while SG&A expenses as a percentage of sales improved by 20 basis points. The increase in SG&A expenses was mainly due to higher employee-related costs.

Cryo Tank Solutions—Results of Operations for the Years Ended December 31, 2021 and 2020

	Year Ended December 31,	2021 vs. 2020

	2021		2020		Variance (\$)	Variance (%)
Sales	\$	447.4	\$	415.8	\$ 31.6	7.6 %
Gross Profit		93.5		99.5	(6.0)	(6.0)%
Gross Profit Margin		20.9 %		23.9 %		
SG&A Expenses	\$	38.1	\$	41.7	\$ (3.6)	(8.6)%
SG&A Expenses (% of Sales)		8.5 %		10.0 %		
Operating Income	\$	52.9	\$	52.5	\$ 0.4	0.8 %
Operating Margin		11.8 %		12.6 %		

Cryo Tank Solutions segment sales increased by \$31.6 million during 2021 as compared to 2020. This increase was mainly driven by higher sales in mobile equipment, engineered tanks and storage systems with strong performance in China, India and Germany.

Cryo Tank Solutions segment gross profit decreased by \$6.0 million during 2021 as compared to 2020, and gross profit margin decreased by 300 basis points. The decrease in gross profit and gross profit margin was mainly driven by higher material prices and higher labor costs due to macroeconomic conditions.

Cryo Tank Solutions segment SG&A expenses decreased increased by \$3.7 million during 2021, 2022 as compared to 2020, 2021. Furthermore, Cryo Tank Solutions segment SG&A expenses as a percentage of Cryo Tank Solutions segment sales improved decreased by 150 20 basis points in

2021, 2022 as compared to 2020. Cryo Tank Solutions 2021. The increase in SG&A expenses was mainly due to higher employee-related costs.

Heat Transfer Systems—Results of Operations for the year ended December 31, 2020 include a \$2.6 million gain on sale of a facility in China. Additionally, restructuring expenses were \$0.3 million in 2021 Years Ended December 31, 2023 and 2022

	Year Ended December 31,		2023 vs. 2022	
	2023	2022	Variance (\$)	Variance (%)
Sales	\$ 891.2	\$ 462.7	\$ 428.5	92.6 %
Gross Profit	246.8	90.6	156.2	172.4 %
Gross Profit Margin	27.7 %	19.6 %		
SG&A Expenses	\$ 54.1	\$ 24.0	\$ 30.1	125.4 %
SG&A Expenses (% of Sales)	6.1 %	5.2 %		
Operating Income (Loss)	\$ 175.8	\$ 51.7	\$ 124.1	240.0 %
Operating Margin	19.7 %	11.2 %		

Heat Transfer Systems segment sales increased by \$428.5 million during 2023 as compared to \$2.3 million 2022 to a record \$891.2 million. The increase was primarily driven by LNG products that utilized brazed aluminum heat exchangers and air coolers and systems servicing big LNG, floating LNG and small scale LNG applications as well as traditional energy applications.

Heat Transfer Systems segment gross profit increased by \$156.2 million during 2023 as compared to 2022, and gross profit margin increased by 810 basis points. The increase in 2020, Heat Transfer Systems segment gross profit was primarily due to volume, and the increase in the related margin was mainly due to overall product and project volume mix.

Heat Transfer Systems segment SG&A expenses increased by \$30.1 million during 2023 as compared to 2022, and SG&A expenses as a percentage of sales increased by 90 basis points. The increase in SG&A expenses was mainly due to higher employee and integration related costs driven by the Howden Acquisition.

Heat Transfer Systems—Results of Operations for the Years Ended December 31, 2022 and 2021

		Year Ended December 31,		2022 vs. 2021	
		2022	2021	Variance (\$)	Variance (%)
		2022	2021	Variance (\$)	Variance (%)
Sales	Sales	\$462.7	\$262.7	\$200.0	76.1 %
Gross Profit	Gross Profit	90.6	35.6	55.0	154.5 %
Gross Profit Margin	Gross Profit Margin	19.6 %	13.6 %		
Sales	Sales	\$ 462.7	\$ 262.7	\$ 200.0	76.1 %
Gross Profit	Gross Profit	90.6	35.6	55.0	154.5 %
Gross Profit Margin	Gross Profit Margin	19.6 %	13.6 %		

SG&A Expenses	SG&A Expenses	\$ 24.0	\$ 28.1	\$ (4.1)	(14.6)%
SG&A Expenses					
SG&A Expenses		\$ 24.0	\$ 28.1	\$ (4.1)	(14.6) %
SG&A Expenses	SG&A Expenses				
(% of Sales)	(% of Sales)	5.2 %	10.7 %		
Operating Income (Loss)		\$ 51.7	\$ (12.3)	\$ 64.0	(520.3)%
Operating Income					
Operating Income					
Operating Income		\$ 51.7	\$ (12.3)	\$ 64.0	(520.3) %
Operating Margin	Operating Margin	11.2 %	(4.7)%		

Heat Transfer Systems segment sales increased by \$200.0 million during 2022 as compared to 2021 to a record \$462.7 million. As previously mentioned in the results of operations section above, t 2021.he The increase was primarily driven by sales in small-scale, floating LNG and big LNG.

Heat Transfer Systems segment gross profit increased by \$55.0 million during 2022 as compared to 2021, and gross gross profit margin increased by 600 basis points. points driven by lower volume, partially offset by lower restructuring costs. The increase in Heat Transfer Systems segment gross profit was primarily due to overall product and project volume mix.

Heat Transfer Systems segment SG&A expenses decreased by \$4.1 million during 2022 as compared to 2021 and SG&A expenses as a percentage of sales improved by 550 basis points. The decrease in SG&A expenses was mainly due to lower employee-related costs.

Heat Transfer Systems—Results of Operations for the Years Ended December 31, 2021 and 2020

	Year Ended December 31,		2021 vs. 2020	
	2021	2020	Variance	Variance
			(\$)	(%)
Sales	\$ 262.7	\$ 369.8	\$ (107.1)	(29.0)%
Gross Profit	35.6	93.7	(58.1)	(62.0)%
Gross Profit Margin	13.6 %	25.3 %		
SG&A Expenses	\$ 28.1	\$ 36.6	\$ (8.5)	(23.2)%
SG&A Expenses (% of Sales)	10.7 %	9.9 %		
Operating Income	\$ (12.3)	\$ 11.2	\$ (23.5)	(209.8)%
Operating Margin	(4.7)%	3.0 %		

Heat Transfer Systems segment sales decreased by \$107.1 million during 2021 as compared to 2020. During 2021, we recognized \$20.1 million in sales relative to Calcasieu Pass as compared to \$97.7 million in 2020. The decrease was driven by industry-wide softness in demand for midstream and upstream compression equipment.

Heat Transfer Systems segment gross profit decreased by \$58.1 million during 2021 compared to 2020, and gross profit margin decreased by 1,170 basis points driven by lower volume, partially offset by lower restructuring costs. The decrease in Heat Transfer Systems segment gross profit was primarily due to overall product and project volume mix, including Calcasieu Pass, which drove higher gross profit margin in 2020.

Heat Transfer Systems segment SG&A expenses decreased by \$8.5 million during 2021 as compared to 2020 mainly due to lower restructuring costs and lower employee-related costs.

Heat Transfer Systems operating income decreased

Specialty Products—Results of Operations for the Years Ended December 31, 2023 and 2022

	Year Ended December 31,		2023 vs. 2022	
	2023	2022	Variance	Variance
			(\$)	(%)
Sales	\$ 819.9	\$ 448.3	\$ 371.6	82.9 %
Gross Profit	221.4	138.6	82.8	59.7 %
Gross Profit Margin	27.0 %	30.9 %		
SG&A Expenses	82.6	\$ 55.6	\$ 27.0	48.6 %
SG&A Expenses (% of Sales)	10.1 %	12.4 %		
Operating Income	119.7	\$ 72.9	\$ 46.8	64.2 %

Operating Margin	14.6 %	16.3 %
------------------	--------	--------

Specialty Products segment sales increased by \$23.5 million \$371.6 million during 2021 2023 as compared to 2020 2022 to a record \$819.9 million. The increase in Specialty Products sales was primarily driven by the inclusion of the acquired Howden business in the current year, including favorable sales in energy recovery, marine, metals, space, water treatment and carbon capture.

Specialty Products segment gross profit increased by \$82.8 million during 2023 as compared to 2022 largely due to industry-wide softness in demand for midstream the Howden Acquisition and upstream compression equipment and overall volume, while gross profit margin decreased by 390 basis points largely due to product and project volume mix, including Calcasieu Pass. During 2020, we recorded an impairment loss mix.

Specialty Products segment SG&A expenses increased by \$27.0 million during 2023 as compared to 2022 primarily driven by inclusion of \$16.0 million to our AXC Intangible Asset.

the Howden business, along with employee and integration related costs driven by the Howden Acquisition.

Specialty Products—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 448.3	\$ 432.9	\$ 15.4	3.6 %
Gross Profit	138.6	145.5	(6.9)	(4.7)%
Gross Profit Margin	30.9 %	33.6 %		
SG&A Expenses	\$ 55.6	\$ 43.3	\$ 12.3	28.4 %
SG&A Expenses (% of Sales)	12.4 %	10.0 %		
Operating Income	\$ 72.9	\$ 94.1	\$ (21.2)	(22.5)%
Operating Margin	16.3 %	21.7 %		

Specialty Products segment sales increased by \$15.4 million during 2022 as compared to 2021 to a record \$448.3 million. Similar to the comments previously mentioned in the results of operations section, the increase in Specialty Products sales was primarily driven by favorable sales in hydrogen and helium applications, water treatment, space applications, food & beverage applications and carbon capture. The sales increase was almost fully offset by a 79.2% decline in HLNG vehicle tank sales driven by higher natural gas prices and our customers' availability of semiconductors due to macroeconomic conditions.

Specialty Products segment gross profit decreased by \$6.9 million during 2022 as compared to 2021, and gross profit margin decreased by 270 basis points largely due to stronger HLNG vehicle tank sales in 2021 as compared to 2022. The decrease in gross profit and the related margin was mainly driven by overall product and project volume mix.

Specialty Products segment SG&A expenses increased by \$12.3 million during 2022 as compared to 2021 primarily driven by ramp up in the business and acquisition additions.

Specialty Products—

Repair, Service & Leasing—Results of Operations for the Years Ended December 31, 2021 December 31, 2023 and 2020 2022

		Year Ended December 31,		2021 vs. 2020	
		2021	2020	Variance (\$)	Variance (%)
		Year Ended December 31,		2023 vs. 2022	
		2023	2022	Variance (\$)	Variance (%)
		2023	2022		
Sales	Sales	\$432.9	\$242.6	\$190.3	78.4 %
Gross Profit	Gross Profit	145.5	84.3	61.2	72.6 %
Gross Profit Margin	Gross Profit Margin	33.6 %	34.7 %		
SG&A Expenses	SG&A Expenses	\$ 43.3	\$ 22.2	\$ 21.1	95.0 %
SG&A Expenses	SG&A Expenses	\$ 116.1	\$ 15.2	\$ 100.9	663.8 %
SG&A Expenses (% of Sales)	SG&A Expenses (% of Sales)	10.0 %	9.2 %		

Operating Income	Operating Income	\$ 94.1	\$ 60.7	\$ 33.4	55.0 %
Operating Income					
Operating Income		\$ 203.3	\$ 51.0	\$ 152.3	298.6 %
Operating Margin	Operating Margin	21.7 %	25.0 %		

Specialty Products Repair, Service & Leasing segment sales increased by \$190.3 million (\$126.6 million organically) \$819.6 million during 2021 2023 as compared to 2020 2022 to \$432.9 million a record \$1,029.2 million. The increase in Specialty Products the sales was primarily driven by favorable sales in hydrogen and helium applications, HLNG vehicle tanks, water treatment and food largely attributed to the Howden Acquisition.

Repair, Service & beverage applications, each of which had double digit growth during 2021 as compared to 2020. This increase was bolstered by inorganic additions during 2021. The increase in sales for water treatment equipment sales primarily related to our acquisitions of BlueInGreen, LLC and AdEdge.

Specialty Products Leasing segment gross profit increased by \$61.2 million (\$38.9 million organically) \$360.7 million during 2021 2023 as compared to 2020 primarily due 2022 to higher volume while a record \$440.2 million, and gross profit margin decreased increased by 110 490 basis points. points to 42.8%. The decrease increase in gross profit and the related margin was mainly driven by higher material prices volumes from the Howden Acquisition and higher labor costs due to macroeconomic conditions. early synergies achieved.

Specialty Products Repair, Service & Leasing segment SG&A expenses increased by \$21.1 million (\$13.0 million organically) \$100.9 million during 2021 2023 as compared to 2020 primarily driven 2022. SG&A expenses as a percentage of sales increased by ramp up 400 basis points. The increase in SG&A expenses was largely attributed to inclusion of the Howden Acquisition in the business. Furthermore, Specialty Products segment SG&A expenses included \$1.1 million relative to acquisition-related contingent consideration adjustments recognized during 2021.

current year and restructuring associated with the acquisition integration.

Repair, Service & Leasing—Results of Operations for the Years Ended December 31, 2022 and 2021

	Year Ended December 31,		2022 vs. 2021	
	2022	2021	Variance (\$)	Variance (%)
Sales	\$ 209.6	\$ 187.0	\$ 22.6	12.1 %
Gross Profit	79.5	49.6	29.9	60.3 %
Gross Profit Margin	37.9 %	26.5 %		
SG&A Expenses	\$ 15.2	\$ 17.8	\$ (2.6)	(14.6)%
SG&A Expenses (% of Sales)	7.3 %	9.5 %		
Operating Income	\$ 51.0	\$ 23.3	\$ 27.7	118.9 %
Operating Margin	24.3 %	12.5 %		

Repair, Service & Leasing segment sales increased by \$22.6 million during 2022 as compared to 2021 to a record \$209.6 million, 2021. Similar to the comments previously mentioned in the results of operations section, the increase was mainly driven by favorable sales in parts, repairs, and services, aftermarket fans, aftermarket air cooled heat exchangers and in our lifecycle business.

Repair, Service & Leasing segment gross profit increased by \$29.9 million during 2022 as compared to 2021, to a record \$79.5 million, and gross profit margin increased by 1,140 basis points to a record 37.9%. points. The increase in gross profit and the related margin was driven by more high margin, short-lead time replacement equipment sales during 2022 as compared to 2021. Furthermore, during 2021 we incurred unfavorable material costs relative to our leasing business which we did not incur during 2022.

Repair, Service & Leasing segment SG&A expenses decreased by \$2.6 million during 2022 as compared to 2021. SG&A expenses as a percentage of sales improved decreased by 220 basis points as a result of large aftermarket sales without incremental SG&A.

Repair, Service & Leasing—Results of Operations for the Years Ended December 31, 2021 and 2020 Corporate

	Year Ended December 31,		2021 vs. 2020	
	2021	2020	Variance (\$)	Variance (%)
Sales	\$ 187.0	\$ 158.3	\$ 28.7	18.1 %
Gross Profit	49.6	54.6	(5.0)	(9.2)%
Gross Profit Margin	26.5 %	34.5 %		
SG&A Expenses	\$ 17.8	\$ 15.3	\$ 2.5	16.3 %
SG&A Expenses (% of Sales)	9.5 %	9.7 %		
Operating Income	\$ 23.3	\$ 30.3	\$ (7.0)	(23.1)%
Operating Margin	12.5 %	19.1 %		

Repair, Service & Leasing segment sales increased by \$28.7 million during 2021 as compared to 2020. The increase was mainly driven by favorable sales in our leasing business, partially offset by a decrease in sales within our full lifecycle services business.

Repair, Service & Leasing segment gross profit decreased by \$5.0 million during 2021 as compared to 2020, and gross profit margin decreased by 800 basis points. The decrease in gross profit margin was mainly driven by unfavorable material costs relative to our leasing business and fewer high margin, short-lead time replacement equipment sales in 2021 as compared to 2020.

Repair, Service & Leasing segment Corporate SG&A expenses increased by \$2.5 million \$84.7 million during 2021 2023 as compared to 2020. L.A. Turbine SG&A expenses of \$2.4 million are included in Repair, Service & Leasing segment results since the July 1, 2021 acquisition date. Excluding L.A. Turbine, SG&A expenses remained relatively flat between years.

Corporate

2022 mainly due to higher professional fees and employee-related costs. Corporate SG&A expenses increased by \$8.4 million during 2022 as compared to 2021 mainly due to higher employee-related costs. Corporate SG&A expenses increased by \$7.1 million during 2021 as compared to 2020 mainly due to higher share-based compensation expense, information technology costs and legal fees partially offset by lower employee-related costs.

Orders and Backlog

We consider orders to be those for which we have received a firm signed purchase order or other written contractual commitment from the customer. Backlog is comprised of the portion of firm signed purchase orders or other written contractual commitments from customers for which work has not been performed, or is partially completed, that we have not recognized as revenue and excludes unexercised contract options and potential orders. Our backlog as of December 31, 2022 December 31, 2023, 2022 and 2021 was \$4,278.8 million, \$2,338.1 million and 2020 was \$2,338.1 million, \$1,190.1 million and \$810.0 million, respectively.

The tables below represent orders received and backlog by segment for the periods indicated (dollar amounts in millions):

		Year Ended December 31,			Year Ended December 31,			
		2022	2021	2020	2023	2022		2021
Orders	Orders							
Cryo Tank Solutions	Cryo Tank Solutions							
Cryo Tank Solutions	Cryo Tank Solutions							
Cryo Tank Solutions	Cryo Tank Solutions	\$ 508.4	\$ 555.4	\$ 417.5				
Heat Transfer Systems	Heat Transfer Systems	1,417.6	312.0	331.1				
Specialty Products	Specialty Products	665.5	648.6	279.2				
Repair, Service & Leasing	Repair, Service & Leasing	218.9	180.6	196.8				
Intersegment eliminations	Intersegment eliminations	(30.5)	(20.5)	(14.5)				
Consolidated	Consolidated	\$2,779.9	\$1,676.1	\$1,210.1				
		As of December 31,						
		2022	2021	2020				
		As of December 31,						
		As of December 31,						
		As of December 31,						
		2023			2023	2022		2021
Backlog	Backlog							
Cryo Tank Solutions	Cryo Tank Solutions							
Cryo Tank Solutions	Cryo Tank Solutions							
Cryo Tank Solutions	Cryo Tank Solutions	\$ 371.0	\$ 346.8	\$ 222.6				
Heat Transfer Systems	Heat Transfer Systems	1,300.1	370.4	329.2				
Specialty Products	Specialty Products	645.9	438.2	199.7				
Repair, Service & Leasing	Repair, Service & Leasing	57.0	56.5	63.1				
Intersegment eliminations	Intersegment eliminations	(35.9)	(21.8)	(4.6)				
Consolidated	Consolidated	\$2,338.1	\$1,190.1	\$ 810.0				

Orders and Backlog for the Year Ended and As of December 31, 2023 Compared to the Year Ended and As of December 31, 2022

Cryo Tank Solutions segment orders for 2023 were \$608.8 million, as compared to \$508.4 million for 2022, an increase of \$100.4 million. This increase was driven by higher orders in general industrials offset by decreases in mobile and storage equipment. Cryo Tank Solutions segment backlog totaled \$361.9 million as of December 31, 2023, compared to \$371.0 million as of December 31, 2022, a decrease of \$9.1 million.

Heat Transfer Systems segment orders for 2023 were \$1,114.2 million compared to \$1,417.6 million for 2022, a decrease of \$303.4 million mainly driven by lower orders for brazed aluminum heat exchangers, air exchangers and across systems. Heat Transfer Systems segment backlog totaled a record \$1,716.5 million as of December 31, 2023 compared to \$1,300.1 million as of December 31, 2022, an increase of \$416.4 million.

Specialty Products segment orders for 2023 were \$1,341.6 million compared to \$665.5 million for 2022, an increase of \$676.1 million. The increase in Specialty Products was mainly driven by strong order intake for hydrogen and helium liquefaction, space, water treatment, carbon capture and other specialty applications. Specialty Products segment backlog totaled a record \$1,631.1 million as of December 31, 2023, compared to \$645.9 million as of December 31, 2022, an increase of \$985.2 million.

Repair, Service & Leasing segment orders for 2023 were \$1,100.8 million compared to \$218.9 million in 2022, an increase of \$881.9 million. The increase was primarily driven by the Howden Acquisition. Repair, Service & Leasing segment backlog totaled \$587.9 million as of December 31, 2023, compared to \$57.0 million as of December 31, 2022, an increase of \$530.9 million.

Orders and Backlog for the Year Ended and As of December 31, 2022 Compared to the Year Ended and As of December 31, 2021

Cryo Tank Solutions segment orders for 2022 were \$508.4 million, as compared to \$555.4 million for 2021, a decrease of \$47.0 million. This decrease was driven by lower order intake for mobile equipment and storage equipment due to timing shifts of customer orders. Cryo Tank Solutions segment backlog totaled \$371.0 million as of December 31, 2022, a record high, compared to \$346.8 million as of December 31, 2021, an increase of \$24.2 million.

Heat Transfer Systems segment orders for 2022 were a record \$1,417.6 million compared to \$312.0 million for 2021, an increase of \$1,105.6 million mainly driven by higher order intake for LNG including big and small-scale LNG, as well as floating LNG. Heat Transfer Systems segment backlog totaled a record \$1,300.1 million as of December 31, 2022 compared to \$370.4 million as of December 31, 2021, an increase of \$929.7 million.

Specialty Products segment orders for 2022 were a record \$665.5 million compared to \$648.6 million for 2021, an increase of \$16.9 million. Comparatively, during 2022 we recorded hydrogen and helium orders of \$300.1 million that included four liquefaction orders totaling \$194.4 million whereas during 2021 we recorded hydrogen hydrogen and helium orders of \$282.1 million that included four liquefaction orders totaling approximately \$150.0 million. The increase in orders was also attributed to an increase in space, water treatment, carbon capture and other specialty applications partially offset by lower order intake for HLNG vehicle tanks driven by higher natural gas prices and our customers' availability of semiconductors due to macroeconomic conditions. Specialty Products segment backlog totaled a record \$645.9 million as of December 31, 2022, compared to \$438.2 million as of December 31, 2021, an increase of \$207.7 million.

Repair, Service & Leasing segment orders for 2022 were a record \$218.9 million compared to \$180.6 million in for 2021, an increase of \$38.3 million. The This increase was primarily driven by higher order intake within lifecycle services, aftermarket fans and our leasing business. Repair, Service & Leasing segment backlog totaled \$57.0 million as of December 31, 2022, compared to \$56.5 million as of December 31, 2021, an increase of \$0.5 million.

Orders and Backlog for the Year Ended and As of December 31, 2021 Compared to the Year Ended and As of December 31, 2020

Cryo Tank Solutions segment orders for 2021 were \$555.4 million, as compared to \$417.5 million for 2020, an increase of \$137.9 million. This increase was driven by favorable order intake for standard tanks and mobile equipment as a result of higher pre-order activity, especially in the second quarter of 2021, as customers anticipated higher prices in future periods. Cryo Tank Solutions segment backlog totaled \$346.8 million as of December 31, 2021, compared to \$222.6 million as of December 31, 2020, an increase of \$124.2 million.

Heat Transfer Systems segment orders for 2021 were \$312.0 million (net of a \$14.4 million change order) compared to \$331.1 million for 2020, a decrease of \$19.1 million mainly driven by softness in demand for natural gas compression equipment. Included in 2020 Heat Transfer Systems segment orders was a \$70 million order for a downstream project (100% air cooled heat exchangers). Heat Transfer Systems segment backlog totaled \$370.4 million as of December 31, 2021 compared to \$329.2 million as of December 31, 2020, an increase of \$41.2 million.

Specialty Products segment orders for 2021 were \$648.6 million (\$494.0 million organically) compared to \$279.2 million (\$277.0 million organically) for 2020, an increase of \$369.4 million (\$217.0 million organically). This increase was mainly driven by strong orders in hydrogen and helium (liquefaction, distribution and storage), HLNG vehicle tanks, LNG regasification, laser applications and food & beverage applications. During 2021, we recorded four hydrogen/helium liquefaction orders totaling approximately \$150 million, covering three different geographies and three different customers. The increase in orders was also attributed to an increase in food & beverage applications and favorable water treatment equipment solutions primarily related to our recent acquisitions of BlueInGreen, LLC and AdEdge. Specialty Products segment backlog totaled \$438.2 million (\$320.4 million organically) as of December 31, 2021, compared to \$199.7 million (\$191.5 million organically) as of December 31, 2020, an increase of \$238.5 million (\$128.9 million organically).

Repair, Service & Leasing segment orders for 2021 were \$180.6 million compared to \$196.8 million for 2020, a decrease of \$16.2 million. This decrease was primarily driven by fewer high margin, short-lead time replacement equipment orders in 2021 as compared to 2020 and significant orders for ISO containers for LNG applications received in 2020, partially offset by higher aftermarket fans and air cooled heat exchangers. Furthermore, orders in our leasing and spare parts businesses were fairly consistent between periods. Repair, Service & Leasing segment backlog totaled \$56.5 million as of December 31, 2021, compared to \$63.1 million as of December 31, 2020, a decrease of \$6.6 million.

Liquidity and Capital Resources

In connection with the funding of the proposed Howden acquisition, Acquisition, we borrowed incremental term loans in March 2023 and entered into a revised and expanded senior secured revolving credit facility and issued new senior secured notes due 2030 and senior unsecured notes due 2031, 2031 during the fourth quarter of 2022. A description of these and our other debt instruments and related covenants are described in Note 10, "Debt and Credit Arrangements," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Sources and Uses of Cash

Our cash and cash equivalents totaled \$2,605.3 million \$201.1 million, which includes \$1,941.7 million \$12.8 million of restricted cash as of December 31, 2022 December 31, 2023, an increase a decrease of \$2,482.9 million \$2,404.2 from the balance at December 31, 2021. December 31, 2022, which included borrowings in connection with the Howden Acquisition. Our foreign subsidiaries held cash of approximately \$170.1 million and \$66.7 million at December 31, 2023 and \$91.2 million at December 31, 2022 and 2021, 2022, respectively, to meet their liquidity needs. No material restrictions exist to accessing cash held by our foreign subsidiaries. We expect to meet our U.S. funding needs without repatriating non-U.S. cash and incurring incremental U.S. taxes. Cash equivalents are primarily invested in money market funds that invest in high quality, short-term instruments, such as U.S. government obligations, certificates of deposit, repurchase obligations, and commercial paper issued by corporations that have been highly rated by at least one nationally recognized rating organization, and in the case of cash equivalents in China, obligations of local banks. We believe that our existing cash and cash equivalents, funds available under our senior secured revolving credit facility due October 2026 or other financing alternatives, and cash provided by operations will be sufficient to meet our normal working capital needs, capital expenditures and investments for the foreseeable future.

Years Ended December 31, 2023 and 2022

Cash provided by operating activities during 2023 was \$167.2 million, an increase of \$86.4 million from 2022, primarily due to an increase in cash generated by operations, partially offset by higher interest payments as a result of the debt raised in connection with the Howden Acquisition and the settlement of claims related to the Pacific Fertility Clinic lawsuits in the amount of \$73.0 million as discussed in Item 3. Legal Proceedings.

Cash used in investing activities during 2023 was \$3,990.1 million, as compared to cash used in investing activities of \$101.6 million during 2022. During 2023 we used \$4,322.3 million of cash for the acquisition of Howden, \$135.6 million for capital expenditures, and \$11.6 million for investments, primarily Avina and Hylum Industries. In 2023 we also received proceeds, net of cash divested, of \$474.8 million from the sale of our Roots, Cofimco, American Fan, and Cryo Diffusion businesses. See below for discussion regarding the composition of cash provided by investing activities during 2022.

Cash provided by financing activities during 2023 was \$1,412.5 million compared to cash provided by financing activities of \$2,504.2 million during 2022. In connection with the Howden Acquisition, we borrowed incremental term loans in the aggregate principal amount of \$1,534.8 million and borrowed incremental term loans in the aggregate principal amount of \$250.0 million for general corporate purposes during 2023. On December 4, 2023, we voluntarily prepaid a portion of our term loans due March 2030 in the amount of \$150.0 million. During 2023, we borrowed \$1,895.1 million from revolving credit facilities and raised \$11.7 million in proceeds for the issuance of common stock, primarily to fund the Howden Acquisition and repaid \$1,901.2 million in borrowings on credit facilities. A portion of debt repayments was funded with the proceeds from the previously mentioned divestitures. During 2023 we paid \$136.2 million in debt issuance costs and paid \$27.3 million of dividends on our mandatory convertible preferred stock. We also paid \$12.2 million in dividend distributions to noncontrolling interest owners during 2023. See below for discussion regarding the composition of cash provided by financing activities during 2022.

Years Ended December 31, 2022 and 2021

Cash provided by operating activities during 2022 was \$80.8 million, an increase of \$102.1 million from 2021, primarily due to an increase in operating cash provided by working capital, particularly within accounts payable and inventory.

Cash used in investing activities during 2022 was \$101.6 million, as compared to cash used in investing activities of \$361.2 million during 2021. During 2022, we paid \$74.2 million for capital expenditures. We also used \$25.8 million of cash for the acquisitions of Fronti Fabrications, Inc., CSC Cryogenic Service Center AB, 100% of a joint venture in AdEdge India and a final net working capital adjustment related to our 2021 acquisition of AdEdge. We used \$9.9 million for investments in Hy24, Gold Hydrogen LLC and Avina Clean Hydrogen Inc., partially offset by \$9.4 million cash received from settlements of our April 1, June 7 and July 8, 2022 cross-currency swaps. See below for discussion regarding the composition of cash provided by investing activities during 2021.

Cash provided by financing activities during 2022 was \$2,504.2 million compared to cash provided by financing activities of \$381.9 million during 2021. During 2022, we borrowed \$2,575.3 million on credit facilities, primarily related to senior secured notes due 2030, senior unsecured notes due 2031 and our senior secured revolving credit facility and repaid \$1,128.2 million in borrowings on credit facilities using proceeds from equity offerings related to the pending Howden acquisition Acquisition to pay down a portion of our senior secured revolving credit facility. Also during 2022, we received \$675.1 million \$675.1 million net proceeds from the issuance of common stock and \$388.1 million net proceeds from the issuance of preferred stock, both related to the pending Howden acquisition. See below for discussion regarding the composition of cash provided by financing activities during 2021.

Years Ended December 31, 2021 and 2020

Cash used in operating activities during 2021 was \$21.3 million, a decrease of \$194.0 million from 2020, primarily due to a decrease in operating cash provided by working capital, particularly within inventory, accounts receivable and unbilled contract revenue during 2021. Due to widespread supply chain and cost challenges, cash used for inventory was primarily driven by cost and availability of raw materials to ensure that we had sufficient stock to meet demand. We continually evaluate our supply chain and make strategic inventory purchases as appropriate.

Cash used in investing activities during 2021 was \$361.2 million, as compared to cash provided by investing activities of \$185.0 million during 2020, which includes \$316.7 million in cash provided by investing activities of discontinued operations primarily related to net cash proceeds of \$317.5 million from the sale of our cryobiological products business in 2020. During 2021, we used \$205.1 million of cash for the acquisitions of Cryogenic Gas Technologies, Inc., L.A. Turbine, AdEdge and Earthly Labs, net of cash acquired. We used \$103.9 million for investments in Svante Inc., Transform Materials LLC, Cryomotive GmbH, Earthly Labs and an additional investment in HTEC Hydrogen Technology & Energy Corporation ("HTEC"). We also paid \$52.7 million for capital expenditures. During 2020, we used \$51.9 million of cash primarily for the acquisitions of Sustainable Energy Solutions, Inc. (\$20.0 million) BlueInGreen, LLC (\$20.0 million) and Alabama Trailers (\$10.0 million), \$50.8 million in investments in HTEC and McPhy (Euronext Paris: MCPHY – ISIN: FR0011742329) and paid \$37.9 million for capital expenditures.

Cash provided by financing activities during 2021 was \$381.9 million compared to cash used in financing activities of \$363.4 million during 2020. During 2021, we borrowed \$1,361.1 million on credit facilities and repaid \$873.6 million in borrowings on credit facilities primarily to fund the acquisitions and investments described in the paragraph above. Furthermore, during the fourth quarter of 2021, we refinanced our senior secured revolving credit facility which resulted in additional sources of cash of \$482.0 million in U.S. dollar borrowings and 78 million euros (equivalent to \$90.5 million) in euro borrowings. These sources of cash repaid principal and interest outstanding under our senior secured revolving credit facility prior to the amendment (\$478.7 million in U.S. dollar borrowings and 78 million euros (equivalent to \$90.5 million) in euro borrowings) plus upfront debt issuance costs. Total debt issuance costs paid during 2021 were \$3.0 million. Also during 2021, we received \$6.9 million in proceeds from stock option exercises and paid \$6.4 million for common

stock repurchases from share-based compensation plans to satisfy tax withholding obligations relating to the vesting or payment of equity awards. During 2020, we borrowed \$215.0 million on credit facilities and repaid \$223.1 million in borrowings on credit facilities. We repaid \$344.1 million in borrowings on our term loan due June 2024 mainly with proceeds from the divestiture of our cryobiological products business. We used \$19.3 million to repurchase shares of Chart common stock related to our share purchase program during 2020 (on March 11, 2021, the share repurchase program expired with no further repurchases). We also received \$11.0 million in proceeds from stock option exercises during 2020. **Acquisition.**

Cash Requirements

We do not currently anticipate any unusual cash requirements for working capital needs for the year ending **December 31, 2023** **December 31, 2024** relating to our existing business. Management anticipates we will be able to satisfy cash requirements for our ongoing business for the foreseeable future with cash generated by operations, existing cash balances and available borrowings under our credit facilities. We expect capital expenditures for **2023 2024** to be in the range of **\$60.0 million \$115.0 million** to **\$65.0 million \$125.0 million**.

Contractual Obligations

Our **material cash requirements from** known contractual obligations **as include those related to debt and leases, refer to Note 10, "Debt and Credit Arrangements" and Note 20, "Leases", respectively, within Item 15, "Exhibits and Financial Statement Schedules" of** **December 31, 2022** and cash requirements resulting from those obligations are as follows (dollar amounts in millions):

	Payments Due by Period				
	Total	Less Than 1 Year	1 – 3 Years	3 – 5 Years	More Than 5 Years
Gross debt ⁽¹⁾	\$ 2,333.3	\$ —	\$ 258.8	\$ 104.5	\$ 1,970.0
Contractual coupon interest, convertible notes due November 2024	5.2	2.6	2.6	—	—
Contractual coupon interest, 7.500% senior secured notes due 2030	766.6	54.8	219.0	219.0	273.8
Contractual coupon interest, 9.500% senior unsecured notes due 2031	387.6	24.2	96.9	96.9	169.6
Operating leases	21.8	6.6	11.0	3.5	0.7
Purchase obligations	8.3	8.3	—	—	—
Total contractual cash obligations	\$ 3,522.8	\$ 96.5	\$ 588.3	\$ 423.9	\$ 2,414.1

(1) The \$258.8 principal balance of the this Annual Report on Form 10-K for payments due by period. We also have contractual coupon interest related to our 1.00% convertible notes due November 2024, Notes will mature on November 15, 2024, yet the carrying amount of the 2024 Notes is treated as current for financial statement reporting purposes. The \$104.5 principal balance on the senior secured revolving credit facility will mature on October 19, 2026. The \$1,460.0 7.500% senior secured notes are due January 1, 2030, 2030 and the \$510.0 9.500% senior unsecured notes due 2031, which, as of December 31, 2023 totals \$160.5 million for the next twelve months and \$917.2 million thereafter. Purchase obligations arising from purchases of inventory and services are due January 1, 2031 (together, the "Notes").

Not included entered into with vendors in the table above is normal course of business and are within our expected requirements for resource planning. We occasionally enter into firm purchase commitments to procure raw materials such as stainless steel, carbon steel and aluminum. As of December 31, 2023, firm purchase commitments were not material.

We also have a **49.1 million 44.1 million** euros investment commitment for the Clean H2 Infra Fund as mentioned in Note 6, "Investments." "Investments" within Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K. Funding is required when the fund manager issues a capital call, which shall not exceed 30% of our capital commitment in any rolling 12-month period. Also not included in the table above are We also have contingent consideration arrangements from prior acquisitions with a potential payout range of **\$0.0 million \$0.0 million** to **\$31.0 million \$12.5 million**.

Howden Acquisition: As previously discussed, in November 2022, we signed a definitive agreement to acquire Howden. We expect to finance the cash portion of the estimated \$4.4 billion purchase price with a combination of debt including a senior secured term loan facility, proceeds from the Notes and cash and restricted cash on our balance sheet. For further discussion, refer Refer to Note 10, "Debt and Credit Arrangements," of our consolidated financial statements included under 14, "Business Combinations" within Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K. 10-K for further information.

Our commercial commitments as of **December 31, 2022** **December 31, 2023**, which include standby letters of credit and bank guarantees, represent potential cash requirements resulting from contingent events that require performance by us or our subsidiaries pursuant to funding commitments, and are as follows (dollar amounts in millions):

	Total	Expiring in 2024 and beyond	
		Expiring in 2023	
Standby letters of credit	\$ 89.1	\$ 11.4	\$ 77.7
Bank guarantees	45.7	28.2	17.5
Total commercial commitments	\$ 134.8	\$ 39.6	\$ 95.2

Inventories, net

Our inventories, net, balance was \$357.9 million at December 31, 2022 compared to \$321.5 million at December 31, 2021, representing an increase of \$36.4 million (11.3%). This increase was primarily driven by growth in the business.

Accrued Income Taxes

Our accrued income taxes balance was \$3.5 million at December 31, 2022 compared to \$16.1 million at December 31, 2021, representing a decrease of \$12.6 million (78.3)%. This decrease was primarily driven by tax payments made during 2022.

	Total	Expiring in 2024	Expiring in 2025 and beyond
Standby letters of credit	\$ 272.1	\$ 165.8	\$ 106.3
Bank guarantees	134.3	85.3	49.0
Total commercial commitments	\$ 406.4	\$ 251.1	\$ 155.3

Contingencies

We are subject to federal, state, local, and foreign environmental laws and regulations concerning, among other matters, waste water effluents, air emissions, and handling and disposal of hazardous materials, such as cleaning fluids. We are

involved with environmental compliance, investigation, monitoring, and remediation activities at certain of our owned and formerly owned manufacturing facilities and at one owned facility that is leased to a third party, and, except for these continuing remediation efforts, believe we are currently in substantial compliance with all known environmental regulations. Management believes that any additional liability in excess of amounts accrued, which may result from the resolution of such matters, should not have a material adverse effect on our financial position, liquidity, cash flows or results of operations.

We are occasionally subject to various legal claims related to performance under contracts, product liability, taxes, employment matters, environmental matters, intellectual property, and other matters, several of which claims assert substantial damages, in the ordinary course of our business. Based on our historical experience in litigating these claims, as well as our current assessment of the underlying merits of the claims and applicable insurance, if any, we believe the resolution of these legal claims will not have a material adverse effect on our financial position, liquidity, cash flows or results of operations. Future developments may, however, result in resolution of these legal claims in a way that could have a material adverse effect. See Item 1A, "Risk Factors" and Item 3, "Legal Proceedings" for further information.

Foreign Operations

During 2022, we had Our foreign operations in Asia, Australia, India, Europe, and South America, which accounted for approximately 42% 58.6% of 2023 consolidated sales and 27% 57.4% of total assets property, plant and equipment at December 31, 2022 December 31, 2023. Functional currencies used by these operations include the U.S. dollar, Chinese yuan, the euro, the British pound, the Japanese yen South African rand, the Indian rupee, and the Indian rupee, Canadian dollar. We are exposed to foreign currency exchange risk as a result of transactions by these subsidiaries in currencies other than their functional currencies, and from transactions by our domestic operations in currencies other than the U.S. dollar. The majority of these functional currencies and the other currencies in which we record transactions are fairly stable, although we experienced variability in the current year as more fully discussed in Item 7A. The use of these currencies, combined with the use of foreign currency forward purchase and sale contracts, has enabled us to be sheltered from significant gains or losses resulting from foreign currency transactions. This situation could change if these currencies experience significant fluctuations or the volume of forward contracts changes.

Critical Accounting Estimates

Our consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and are based on the selection and application of significant accounting policies, which require management to make estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates. There were no material changes to estimates or methodologies used to develop those estimates in 2023. Management believes the following are the more critical judgmental areas in the application of its accounting policies that affect its financial position and results of operations.

Goodwill and Indefinite-Lived Intangible Assets: We evaluate goodwill and indefinite-lived intangible assets for impairment on an annual basis, as of October 1 or whenever events or changes in circumstances indicate that an evaluation should be completed. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include deterioration in general economic conditions, negative developments in equity and credit markets, a decline in stock price and market capitalization, adverse changes in the markets in which we operate, and a trend of negative or declining cash flows over multiple periods. The fair value that could be realized in an actual transaction may differ from that used to evaluate the impairment of goodwill.

Goodwill is analyzed on a reporting unit basis. The reporting units are the same as our operating and reportable segments, which are as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. To test goodwill for impairment, we first evaluate qualitative factors, such as macroeconomic conditions and our overall financial performance to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill (the "Step 0 Test"). If we determine that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, the first step of the goodwill impairment test is not necessary. Otherwise, we would proceed to the first step of the goodwill impairment test.

Alternatively, we may also bypass the Step 0 Test and proceed directly to the first step of the goodwill impairment test. Under the first step ("Step 1"), we estimate the fair value of our reporting units by considering income and market approaches to develop fair value estimates, which are weighted to arrive at a fair value estimate for each reporting unit. With respect to the income approach, a model has been developed to estimate the fair value of each reporting unit. This fair value model incorporates estimates of future cash flows, estimates of allocations of certain assets and cash flows among reporting units, estimates of future growth rates, and management's judgment regarding the applicable discount rates to use to discount such estimates of cash flows. With respect to the market approach, a guideline company method is employed whereby pricing multiples are derived from companies with similar assets or businesses to estimate fair value of each reporting unit. If the fair value of the reporting unit exceeds the carrying amount of the net assets assigned to that reporting unit, then goodwill is not impaired, and no further testing is required. However, if the fair value of the reporting unit is less than its carrying amount, the impairment charge is based on the excess of a reporting unit's carrying amount over its fair value (i.e., we would measure the charge based on the result from Step 1). The assumptions and judgment used by management to estimate future cash flows, allocation of assets and cash flows among reporting units, estimates of future growth rates and selection of discount rates are subject to change due to the economic environment, including such factors as interest rates, expected market returns and volatility of markets served. Changes to the assumptions and estimates used throughout the steps described above may result in a significantly different estimate of the fair value of the reporting units, which could result in a different assessment of the recoverability of goodwill and result in future impairment charges.

In order to assess the reasonableness of the calculated fair values of our reporting units, we also compare the sum of the reporting units' fair values to our market capitalization and calculate an implied control premium (the excess of the sum of the reporting units' fair values over the market capitalization). We evaluate the control premium by comparing it to control premiums of recent comparable transactions. If the implied control premium is not reasonable in light of this assessment, we reevaluate our fair value estimates of the reporting units by adjusting the discount rates and other assumptions as necessary.

With respect to indefinite-lived intangible assets, we first evaluate relevant events and circumstances to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. If, in weighing all relevant events and circumstances in totality, we determine that it is not more likely than not that an indefinite-lived intangible asset is impaired, no further action is necessary. Otherwise, we would determine the fair value of indefinite-lived intangible assets and perform a quantitative impairment assessment by comparing the indefinite-lived intangible asset's fair value to its carrying amount. We may bypass such a qualitative assessment and proceed directly to the quantitative assessment. We estimate the fair value of our indefinite-lived assets using the income approach. This may include the relief from royalty method or use of a model similar to the one described above related to goodwill which estimates the future cash flows attributed to the indefinite-lived intangible asset and then discounting these cash flows back to a present value. Under the relief from royalty method, fair value is estimated by discounting the royalty savings, as well as any tax benefits related to ownership to a present value. The fair value from either approach is compared to the carrying value and an impairment is recorded if the fair value is determined to be less than the carrying value. Management's estimates regarding future cash flows, selection of discount rates and estimated tax benefits are subject to change due to various economic factors and changes to the assumptions and estimates used throughout the steps described above and may result in a significantly different estimate of the fair value of indefinite-lived intangible assets which could result in a different assessment of the recoverability of these assets and result in future impairment charges.

As of **October 1, 2022** **October 1, 2023** and 2021 ("annual reporting unit assessment dates") we elected to bypass the Step 0 test and based on our Step 1 test, we determined that the fair value of each of our reporting units was greater than its respective carrying value at each annual reporting unit assessment date, and therefore, no further action was necessary. **Furthermore, as**

As of October 1, 2023, we elected to bypass the annual assessment dates, Step 0 test and based on our Step 1 test, we determined that the fair value of each of our indefinite-lived intangible assets was greater than its respective carrying value, and therefore, no further action was necessary. As of October 1, 2022 and 2021, we also elected to bypass the qualitative assessment for indefinite-lived intangible assets with the exception of our recently acquired trade names as of October 1, 2022 which includes Earthly Labs and Fronti Fabrications, Inc (together, trade names for the "recently acquired trade names"). October 1, 2022 assessments. Based on our qualitative assessment of the recently acquired these trade names, we determined that it is not "more likely than not" that the fair value of each of the recently acquired these trade names is less than its respective carrying amount. With one exception as discussed in the next paragraph, based Based on our quantitative assessments of all other trade names, indefinite-lived intangible assets, we determined that the fair value of each of the indefinite-lived intangible assets was greater than its respective carrying value at each annual assessment date both October 1, 2022 and 2021, and therefore, no further action was necessary.

During 2020, in connection with the annual impairment process described above, Chart, with the assistance of an outside professional accounting firm, performed an impairment analysis with respect to our AXC Intangible Asset. As a result, we recorded an impairment loss of \$16.0 million during 2020 relative to our AXC Intangible Asset in our Heat Transfer Systems segment.

Long-Lived Assets: We monitor our property, plant and equipment, and finite-lived intangible assets for impairment indicators on an ongoing basis. If impairment indicators exist, assets are grouped and tested at the lowest level for which

identifiable cash flows are available, and we perform the required analysis and record impairment charges if applicable. In conducting this analysis, we compare the undiscounted cash flows expected to be generated from the long-lived assets to the related net book values. If the undiscounted cash flows exceed the net book value, the long-lived assets are considered not to be impaired. If the net book value exceeds the undiscounted cash flows, an impairment loss is measured and recognized. An impairment loss is measured as the difference between the net book value and the fair value of the long-lived assets. Fair value is estimated from discounted future net cash flows (for assets held for use) or net realizable value (for assets held for sale). In assessing the recoverability of our long-lived assets, a significant amount of judgment is involved in estimating the future cash flows, discount rates and other factors necessary to determine the fair value of the respective assets. Key assumptions used in these estimates include industry and market conditions, costs to produce and projected revenue growth. If these estimates or the related assumptions change in the future, we may be required to record impairment charges for these assets in the period such

determination was made. We amortize intangible assets that have finite lives over their estimated useful lives. We had no long-lived asset impairments in the last three years.

Business Combinations: We account for business combinations in accordance with Accounting Standards Codification ("ASC") 805, "Business Combinations." We recognize and measure identifiable assets acquired and liabilities assumed based on their estimated fair values. The excess of the consideration transferred over the fair value of the net assets acquired, including identifiable intangible assets, is assigned to goodwill. We estimate the fair value of identifiable intangible assets under income approaches where the fair value models incorporate estimates of future cash flows, estimates of allocations of certain assets and cash flows, estimates of future growth rates, and management's judgment regarding the applicable discount rates to use to discount such estimates of cash flows. Assigning estimated fair values to the identifiable assets acquired and liabilities assumed requires the use of significant estimates, judgments, inputs and assumptions. Such assumptions are based in part on historical experience, industry and market conditions and information obtained from management of the acquired companies and are thus inherently uncertain. As additional information becomes available, we may further revise the preliminary acquisition consideration allocation during the remainder of the measurement period, which shall not exceed twelve months from the closing of the acquisition.

Investments in Equity Securities Without a Readily Determinable Fair Value: Our investments in equity securities for which there is no readily determinable fair value are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. As part of our assessment for impairment indicators, judgement is involved in considering significant deterioration in the earnings performance, credit rating, asset quality or overall business prospects of the investee as well as significant adverse changes in the external environment in which an investee operates, a significant adverse change in the general market condition of either the geographical area or the industry in which the investee operates or factors that raise significant concerns about the investee's ability to continue as a going concern, such as negative cash flows from operations, working capital deficiencies, or noncompliance with statutory capital requirements or debt covenants. Furthermore, management must use reasonable efforts to identify an observable price change on a timely basis. Despite these efforts, we may not be able to obtain this information. If we determine that an investment is impaired, we shall measure the investment at fair value, which may involve a significant degree of judgement and subjectivity. **The carrying amount of our investments in equity securities without a readily determinable fair value was \$80.3 million as of December 31, 2023.**

Contingencies: On an ongoing basis, we assess the potential liabilities related to any lawsuits or claims brought against us. While it is typically very difficult to determine the timing and ultimate outcome of such actions, management uses its best judgment to determine if it is probable that we will incur an expense related to the settlement or final adjudication of such matters and whether a reasonable estimation of such probable loss, if any, can be made. In assessing probable losses, we take into consideration estimates of the amount of insurance recoveries, if any, which are recorded in other current assets when recoverability is probable. We accrue a liability when we believe a loss is probable and the amount of loss can be reasonably estimated. Due to the inherent uncertainties related to the eventual outcome of litigation and potential insurance recoveries, it is possible that certain matters may be resolved for amounts materially different from any provisions or disclosures that we have previously made.

Revenue Recognition: Revenue is recognized when (or as) we satisfy performance obligations by transferring a promised good or service, an asset, to a customer. An asset is transferred to a customer when, or as, the customer obtains control over that asset. In most contracts, the transaction price includes both fixed and variable consideration. The variable consideration contained within our contracts with customers includes discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties and other similar items. When a contract includes variable consideration, we evaluate the estimate of the variable consideration to determine whether the estimate needs to be constrained; therefore, we include the variable consideration in the transaction price only to the extent that it is probable that a significant reversal of the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Variable consideration estimates are updated at each reporting date.

For brazed aluminum heat exchangers, air cooled heat exchangers, cold boxes, liquefied natural gas fueling stations, engineered tanks, repair services, hydrogen solutions, water treatment systems

In certain contracts, we are engaged to engineer and carbon capture systems, contracts contain language that transfers control build highly-customized products and systems. In these circumstances, we produce an asset with no alternative use and have a right to the customer over time, payment for performance completed to date. For these contracts, revenue is recognized as we satisfy the performance obligations by an allocation of the transaction price to the accounting period computed using input methods such as costs incurred. Selecting the method used to measure progress towards completion for our contracts requires judgment and is based on the nature of the products to be provided. Accounting for contracts using the costs incurred input method requires management judgment relative to assessing risks and their impact on the estimates of revenue and costs. Certain factors can impact these estimates including, but not limited to, the potential for incentives or penalties on performance, schedule delays, labor productivity, the complexity of work performed and the cost and availability of materials. Revisions to estimated cost to complete a project that result from inefficiencies in our performance that were not expected in the pricing of the contract are expensed in the period in which these inefficiencies become known. Contract modifications can change a contract's scope,

price, or both. Approved contract modifications are accounted for as either a separate contract or as part of the existing contract depending on the nature of the modification which is subject to management's judgment.

Income Taxes: The Company and its U.S. subsidiaries file a consolidated federal income tax return. Deferred income taxes are provided for temporary differences between financial reporting and the consolidated tax return in accordance with the liability method. A valuation allowance is provided against net deferred tax assets when conditions indicate that it is more likely than not that the benefit related to such assets will not be realized. In the event that we change our determination as to the amount of deferred tax assets that can be realized, the valuation allowance will be adjusted with a corresponding impact to the provision for income taxes in the period in which such determination is made. Management must make assumptions, judgments and estimates to determine our deferred tax assets and liabilities, current provision for income taxes and valuation allowances. In making such assumptions we consider all available evidence including past operating results, estimates of future taxable income and the feasibility of tax planning strategies.

We utilize a two-step approach for the recognition and measurement of uncertain tax positions. The first step is to evaluate the tax position and determine whether it is more likely than not that the position will be sustained upon examination by tax authorities. The second step is to measure the tax benefit as the largest amount that is more likely than not of being realized upon settlement. Our income tax positions are based on research and interpretations of the income tax laws and rulings in each of the jurisdictions in which we do business. Due to the subjectivity of interpretations of laws and rulings in each jurisdiction, the differences and interplay in tax laws between those jurisdictions, as well as the inherent uncertainty in estimating the final resolution of complex tax audit matters, management's estimates of income tax liabilities may differ from actual payments or assessments. Resolution of uncertain tax positions could have a material adverse effect or materially benefit our results of operations in future periods depending on their ultimate resolution.

We use an estimate of our annual effective tax rate at each interim reporting period based on the facts and circumstances available at that time, while the actual effective tax rate is calculated at year-end. In calculating these rates, significant judgment is involved regarding the application of global income tax laws and regulations and when projecting the jurisdictional mix of income. Additionally, interpretation of tax laws, court decisions or other guidance provided by taxing authorities influences our estimate of the effective income tax rates. As a result, our actual effective income tax rates and related income tax liabilities may differ materially from our estimated effective tax rates and related income tax liabilities. Any resulting differences are recorded in the period they become known. An increase or decrease of one percentage point in our effective tax rate would have affected our 2023 net income by \$0.6 million.

Recent Accounting Standards

For disclosures regarding recent accounting standards, refer to Note 2, "Significant Accounting Policies," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Forward-Looking Statements

We are making this statement in order to satisfy the "safe harbor" provisions contained in the Private Securities Litigation Reform Act of 1995. This Annual Report includes "forward-looking statements." These forward-looking statements include statements relating to our business, including statements regarding completed and pending acquisitions and investments and related accretion or statements with respect to the use of proceeds or redeployment of capital from recent or planned divestitures, as well as statements regarding revenues, cost and commercial synergies and efficiency savings, objectives, future orders, margins, segment sales mix, earnings or performance, liquidity and cash flow, inventory levels, capital expenditures, supply chain challenges, inflationary pressures including materials costs and pricing increases, business trends, clean energy market opportunities including addressable market and projected industry-wide investments, carbon and GHG emission targets, governmental initiatives, including executive orders and other information that is not historical in nature. In some cases, forward-looking statements may be identified by terminology such as "may," "will," "should," "expects," "anticipates," "believes," "projects," "forecasts," "outlook," "guidance," "target," "continue" or the negative of such terms or comparable terminology. Forward-looking statements contained herein (including future cash contractual obligations, liquidity, cash flow, orders, results of operations, projected revenues, margins, capital expenditures, industry and business, trends, clean energy

and other new market or expansion opportunities, cost and commercial synergies and savings objectives, and government initiatives among other matters) or in other statements made by us are made based on management's expectations and beliefs concerning future events impacting us and are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control, that could cause our actual results to differ materially from those matters expressed or implied by forward-looking statements.

The risk factors discussed in Item 1A. "Risk Factors" and the factors discussed in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations," among others, could affect our future performance and liquidity and value of our securities and could cause our actual results to differ materially from those expressed or implied by forward-looking statements made by us or on our behalf. These factors should not be construed as exhaustive and there may also be other risks that we are unable to predict at this time. All forward-looking statements included in this Annual Report are expressly qualified in their entirety by these cautionary statements.

All forward-looking statements attributable to us or persons acting on our behalf apply only as of the date of this Annual Report and are expressly qualified in their entirety by the cautionary statements included in this Annual Report. We undertake no obligation to update or revise forward-looking statements which may be made to reflect events or circumstances that arise after the filing date of this document or to reflect the occurrence of unanticipated events, except as otherwise required by law.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, our operations are exposed to fluctuations in interest rates and foreign currency values that can affect the cost of operating and financing. Accordingly, we address a portion of these risks through a program of risk management.

Interest Rate Risk: Our primary interest rate risk exposure results from various floating rate pricing mechanisms contained in our senior secured revolving credit facility due October 2026, 2026 and term loans due March 2030. If interest rates were to increase 100 basis points (1 percent) from the weighted-average interest rate of 3.4% 6.2% at December 31, 2022 December 31, 2023, and assuming no changes in the \$104.5 million \$102.8 million of borrowings outstanding under the senior secured revolving credit facility due October 2026 at December 31, 2022 December 31, 2023, our additional annual expense would be approximately \$1.0 million on a pre-tax basis. If interest rates were to increase 100 basis points (1 percent) from the interest rate for our term loan of 8.7% at December 31, 2023, and assuming no changes in the \$1,631.0 million of borrowings outstanding under the term loan at December 31, 2023, our additional annual expense would be approximately \$16.3 million on a pre-tax basis.

Foreign Currency Exchange Rate Risk: We operate in the United States and other foreign countries, which creates exposure to foreign currency exchange fluctuations in the normal course of business, which can impact our financial position, results of operations, cash flow, and competitive position. The financial statements of foreign subsidiaries are translated into their U.S. dollar equivalents at end-of-period exchange rates for assets and liabilities, while income and expenses are translated at average monthly exchange rates. Translation gains and losses are components of other comprehensive loss income as reported in the consolidated statements of income and comprehensive income. Translation exposure is primarily with the euro, the Czech koruna, the Chinese yuan, the South African rand, the British pound and the Indian rupee. During 2022, 2023, the Czech koruna, U.S. dollar strengthened in relation to the South African rand by 9% and Chinese yuan by 2%, and weakened in relation to the British pound by 5% and the euro Chinese yuan by 3%. There was no notable movement between the U.S. dollar and the Indian rupee increased in relation to the U.S. dollar by less than 15%. or Czech koruna. At December 31, 2022 December 31, 2023, a hypothetical further 10% strengthening of the U.S. dollar would not materially affect our financial statements.

EUR Revolver Borrowings: Assuming Additionally, assuming no changes in the 98.0 million euros euro 88.5 million in EUR Revolver Borrowings outstanding under the senior secured revolving credit facility due October 2026 and an additional 100 basis points (1 percent) strengthening in the U.S.U.S. dollar in relation to the euro as of the beginning of 2022, 2023, during the year ended December 31, 2022 December 31, 2023, our additional unrealized foreign currency gain would be approximately \$1.1 million \$1.0 million on a pre-tax basis.

Transaction Gains and Losses: Chart's primary transaction exchange rate exposures are with the euro, the Chinese yuan, the Czech koruna, the Indian rupee, the Australian dollar, the British pound, the Canadian dollar and the Japanese yen. South African rand. Transaction gains and losses arising from fluctuations in currency exchange rates on transactions denominated in currencies other than the functional currency are recognized in the consolidated statements of income and comprehensive income as a component of foreign currency (gain) loss. gain.

Derivative Instruments: We enter into foreign exchange forward currency contracts not designated as hedging instruments to hedge mitigate foreign currency risk for anticipated and firmly committed foreign currency transactions. We do not use derivative financial instruments for speculative or trading purposes. The terms of the contracts are generally one year or less. At December 31, 2022 December 31, 2023, a hypothetical 10% weakening of the U.S. dollar would not materially affect our outstanding foreign exchange forward contracts. We enter into a combination of cross-currency swaps and foreign exchange collars as a net investment hedge of our investments in certain international subsidiaries that use the euro as their functional currency in order to reduce the volatility caused by changes in exchange rates. As disclosed in Note 10, "Debt and Credit Arrangements," we purchased have an out-of-the-money protective call while writing a put option with a strike price at which the premium received is equal to the premium of the protective call purchased, which involved no initial capital outlay. The call was structured with a strike price higher than our cost basis in such investments, thereby limiting any foreign exchange losses to approximately \$11.4 million on a pre-tax basis. We do not use derivative financial instruments for speculative or trading purposes. The terms of the contracts are generally one to three years.

Market Price Sensitive Instruments

In connection with the pricing of the 2024 Notes, we entered into privately negotiated convertible note hedge transactions (the "Note Hedge Transactions") with certain parties, including affiliates of the initial purchasers of the 2024 Notes (the "Option Counterparties"); which relate to 4.41 million shares of our common stock and represents the number of shares of our common stock underlying the 2024 Notes. These Note Hedge Transactions are expected to reduce the potential dilution upon any future conversion of the 2024 Notes. Notes to the extent that the market price per share of our common stock exceeds the conversion price of \$58.725 per share.

We also entered into separate, privately negotiated warrant transactions with the Option Counterparties to acquire up to 4.41 million shares of our common stock. The warrant transactions will have a dilutive effect with respect to our common stock to the extent that the price per share of our common stock exceeds the strike price of the warrants unless we elect, subject to certain conditions, to settle the warrants in cash. The strike price of the warrant transactions related to the 2024 Notes was initially \$71.775 per share. Further

information is located in Note 10, "Debt and Credit Arrangements," of our consolidated financial statements included under Item 15, "Exhibits and Financial Statement Schedules" of this Annual Report on Form 10-K.

Item 8. Financial Statements and Supplementary Data

Our Financial Statements and the accompanying Notes that are filed as part of this Annual Report are listed under Item 15. "Exhibits and Financial Statement Schedules" and are set forth beginning on page [F-1](#) immediately following the signature page of this Form 10-K and are incorporated into this Item 8 by reference.

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

As of [December 31, 2022](#) [December 31, 2023](#), an evaluation was performed under the supervision and with the participation of our management including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities and Exchange Act of 1934, as amended (the "Exchange Act"). The term "disclosure controls" means disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act (1) is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (2) is accumulated and communicated to our management including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow for timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation of our disclosure controls and procedures as of [December 31, 2022](#) [December 31, 2023](#), our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at a reasonable level of assurance.

Management's Report on Internal Control Over Financial Reporting

Management of Chart Industries, Inc. and its subsidiaries (the "Company," "Chart," "we," "us," or "our") is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of our principal executive and financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

The Company's internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and the directors of the Company; and
- 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 Company's financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate. Management has assessed the effectiveness of its internal control over financial reporting as of [December 31, 2022](#) [December 31, 2023](#) based on the framework established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the "COSO criteria").

We did not include an evaluation of the internal control over financial reporting of [Fronti Fabrications, Inc.](#) or [CSC Cryogenic Service Center AB, Howden](#), which [were](#) [was](#) acquired during [2022](#) [2023](#) and which, [combined](#), constituted [\\$26.5 million](#) [\\$6,005.0 million](#) and [\\$23.9 million](#) [\\$4,058.7 million](#) of total and net assets, respectively, as of [December 31, 2022](#) [December 31, 2023](#), and [\\$2.0 million](#) [\\$1,537.9 million](#) and [\\$0.2 million](#) [\\$188.5 million](#) of sales and operating [loss](#), [income](#), respectively, for the year then ended.

Based on our assessment of internal control over financial reporting, management has concluded that, as of [December 31, 2022](#) [December 31, 2023](#), our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of [December 31, 2022](#) [December 31, 2023](#) has been audited by Deloitte & Touche, LLP, an independent registered public accounting firm, and is included in this Annual Report on Form 10-K on page F-4 under the caption "Report of Independent Registered Public Accounting Firm."

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item as to the Directors of the Company appearing under the caption "Election of Directors" in our 2023 2024 Proxy Statement is incorporated herein by reference. Information required by this item as to the Executive Officers of the Company is included as Item 4A of this Annual Report on Form 10-K as permitted by Instruction 3 to Item 401(b) of Regulation S-K. Information required by Item 405 is set forth in the 2023 2024 Proxy Statement under the heading "Delinquent section 16(a) Reports," which information is incorporated herein by reference. Information required by Items 406 and 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is set forth in the 2023 2024 Proxy Statement under the headings "Information Regarding Meetings and Committees of the Board of Directors," "Code of Ethical Business Conduct and Officer Code of Ethics" and "Stockholder Communications with the Board," which information is incorporated herein by reference.

The Charters of the Audit Committee, Compensation Committee and Nominations and Corporate Governance Committee and the Corporate Governance Guidelines, Officer Code of Ethics and Code of Ethical Business Conduct are available free of charge on our website at www.chartindustries.com and in print to any stockholder who requests a copy. Requests for copies should be directed to Secretary, Chart Industries, Inc., 2200 Airport Industrial Drive, Suite 100, Ball Ground, Georgia 30107. We intend to disclose any amendments to the Code of Ethical Business Conduct or Officer Code of Ethics and any waiver of the Code of Ethical Business Conduct or Officer Code of Ethics granted to any Director or Executive Officer of the Company on our website.

Executive Officers

The name, age and positions of each Executive Officer of the Company as of February 28, 2024 are as follows:

Name	Age	Position
Jillian C. (Jill) Evanko	46	Chief Executive Officer and President (Principal Executive Officer)
Joseph R. (Joe) Brinkman	54	Vice President and Chief Financial Officer (Principal Financial Officer)
Gerald F. (Gerry) Vinci	58	Vice President, Chief Human Resources Officer
Herbert G. (Herb) Hotchkiss	53	Vice President, General Counsel and Secretary
Joseph A. (Joe) Belling	54	Chief Commercial Officer
Brian P. Bostrom	50	Chief Technology Officer

Jillian C. (Jill) Evanko was appointed Chief Executive Officer and President on June 12, 2018 and served as Chief Financial Officer from March 1, 2017 until January 14, 2019 and from August 29, 2019 until March 16, 2021. Ms. Evanko joined Chart on February 13, 2017 as Vice President of Finance. Prior to joining Chart, Ms. Evanko served as the Vice President and Chief Financial Officer of Truck-Lite Co., LLC, a manufacturer of lighting and specialty products for the truck and commercial vehicle industries, since October 2016. Prior to that, she held multiple executive positions at Dover Corporation (NYSE: DOV), a diversified global manufacturer, and its subsidiaries, including the role of Vice President and Chief Financial Officer of Dover Fluids since January 2014. Prior to joining Dover in 2004, Ms. Evanko worked in valuation services at Arthur Andersen, LLP and also held audit and accounting roles for Honeywell and Sony Corporation of America. Ms. Evanko also serves as a director of Parker-Hannifin Corporation (NYSE: PH).

Joseph R. (Joe) Brinkman was appointed our Vice President and Chief Financial Officer on October 1, 2021. Prior to his appointment, Mr. Brinkman was Vice President and General Manager of Industrial Gas Products, the Company's largest business. In his 24 years with the Company Mr. Brinkman has held various roles including Materials Manager, Director of Global Sourcing and most recently Vice President & General Manager of Bulk Gas Products.

Gerald F. (Gerry) Vinci was appointed our Vice President and Chief Human Resources Officer and has served in that capacity since December 5, 2016, when he joined Chart. Mr. Vinci was designated an executive officer of Chart on August 23, 2017. Prior to joining Chart, Mr. Vinci held various executive Human Resources roles at Dover Corporation (NYSE:DOV), a diversified global manufacturer, from February 2013 to November 2016, including Vice President, Human Resources for Dover Engineered Systems and Dover Refrigeration and Food Equipment Segments. From 1997 to 2013, Mr. Vinci served in numerous Human Resources executive roles and as Senior Counsel for Harsco Corporation (NYSE:HSC). Prior to that, Mr. Vinci was an attorney for Sunoco, Inc.(NYSE:SUN).

Herbert G. (Herb) Hotchkiss was appointed Vice President, General Counsel and Secretary on March 3, 2019. Prior to joining Chart, Mr. Hotchkiss spent over 11 years at Truck-Lite Co., LLC, a manufacturer of lighting and specialty products for the truck and commercial vehicle industries, as Vice President and Corporate Counsel. Prior to joining Truck-Lite, Mr. Hotchkiss worked for Blair Corporation as its Vice President and General Counsel. Prior to joining Blair Corporation, Mr.

Hotchkiss was employed as a Cleveland attorney, working as corporate associate at Calfee, Halter & Griswold LLP and Hahn, Loeser & Parks LLP.

Joseph A. (Joe) Belling was appointed Chief Commercial Officer on August 11, 2020. Prior to his appointment, Mr. Belling held various roles at Chart, most recently as President of the Chart Energy and Chemicals (E&C) segment and prior to that as President of E&C Cryogenics and VP/GM of Chart's Braze Aluminum Heat Exchangers (BAHX) business. Prior to joining Chart, Mr. Belling served in various roles of increasing responsibility at Trane Technologies (NYSE: TT), a multi-national corporation specializing in the HVAC industry. Mr. Belling was also employed by ALTEC International, which transitioned into Chart Energy and Chemicals.

Brian P. Bostrom was appointed Chief Technology Officer on January 9, 2023. Mr. Bostrom joined Chart in 1994. During his 28 years with the Company, Mr. Bostrom has held numerous engineering roles, including his most recent role of President of Global Engineering. As Chief Technology Officer, Mr. Bostrom has responsibility for all global engineering activities and advancement and commercialization of global product applications across the Company. He will also continue to be a leader in developing the Company's engineering depth and capabilities. Mr. Bostrom holds an engineering degree from the University of Minnesota, is a member of the Compressed Gas Association and a member of the 2019 inaugural class of Chart Fellows.

Set forth below is a list of the members of our Board of Directors as of February 24, 2023 February 28, 2024:

Directors

SINGLETON B. MCALLISTER (2)

Chairman of the Board

Of Counsel and Senior Advisor

Husch Blackwell LLP

Law firm

JILLIAN C. EVANKO

President, Chief Executive Officer and Director

Chart Industries, Inc.

ANDREW R. CICHOCKI (1) (3)

Retired Chief Operating Officer

Airgas, Inc.

Supplier of gases, welding equipment and supplies, and safety products

PAULA M. HARRIS (1) (3)

Senior Vice President of Community Affairs and Foundation Executive Director

Houston Astros

Major league baseball club

LINDA A. HARTY (1) (2) (3)

Former Vice President Treasurer Retired Finance Executive

Medtronic

Global company specializing in medical technology, services and solutions

PAUL E. MAHONEY (1) (2)

President of Production and Automation Technologies

ChampionX

Global provider of chemistry solutions and highly engineered equipment and technologies for the oil and gas industry

MICHAEL L. MOLININI (1) (3)

Retired Chief Executive Officer and President

Airgas, Inc.

Supplier of gases, welding equipment and supplies, and safety products

DAVID M. SAGEHORN (1) (3)

Retired Executive Vice President and Chief Financial Officer

Oshkosh Corporation

Global producer of specialty trucks, truck bodies, and access equipment used in defense, construction and service markets

SPENCER S. STILES (1) (2)

Group President

Stryker Corporation

Global company specializing in medical technology products and services

ROGER A. STRAUCH (2)

Chairman

The Roda Group

Early-stage venture capital group focused on investment opportunities that address the consequences of climate change and increased demand for low carbon energy

-
- (1) Compensation Committee
- (2) Nominations and Corporate Governance Committee
- (3) Audit Committee

Item 11. Executive Compensation

The information required by Item 402 of Regulation S-K is set forth in the 2023 2024 Proxy Statement under the heading "Executive and Director Compensation," which information is incorporated herein by reference. The information required by Items 407(e)(4) and 407(e)(5) of Regulation S-K is set forth in the 2023 2024 Proxy Statement under the headings "Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report," respectively, which information is incorporated herein by reference.

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

The information required by this item is set forth in the 2023 2024 Proxy Statement under the headings "Security Ownership of Certain Beneficial Owners" and "Equity Compensation Plan Information," which information is incorporated herein by reference.

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

The information required by this item is set forth in the 2023 2024 Proxy Statement under the headings "Related Party Transactions" and "Director Independence," which information is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information required by this item is set forth in the 2023 2024 Proxy Statement under the heading "Principal Accounting Fees and Services," which information is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this 2022 2023 Annual Report on Form 10-K:

1. *Financial Statements.* The following consolidated financial statements of the Company and its subsidiaries and the reports of the Company's independent registered public accounting firm are incorporated by reference in Item 8:
Reports of Independent Registered Public Accounting Firm (PCAOB ID No. 34)
Consolidated Balance Sheets
Consolidated Statements of Income
Consolidated Statements of Comprehensive Income
Consolidated Statements of Cash Flows
Consolidated Statements of Equity
Notes to Consolidated Financial Statements
2. *Financial Statement Schedules.* The following additional information should be read in conjunction with the consolidated financial statements:
Schedule II Valuation and Qualifying Accounts for the Years Ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021.
All other financial statement schedules have been omitted since they are either not required, not applicable, or the information is otherwise included.
3. *Exhibits.* See the Index to Exhibits at page E-1 of this Annual Report on Form 10-K.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

Chart Industries, Inc.

By:

/s/ Jillian C. Evanko

Jillian C. Evanko
Chief Executive Officer and President
(Principal Executive Officer)

Date: February 24, 2023 February 28, 2024

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

By:		
<u>/s/ Singleton B. McAllister</u>	Singleton B. McAllister	Chairman of the Board, Director
<u>/s/ Jillian C. Evanko</u>	Jillian C. Evanko	Chief Executive Officer, President and a Director (Principal Executive Officer)
<u>/s/ Joseph R. Brinkman</u>	Joseph R. Brinkman	Vice President and Chief Financial Officer (Principal Financial Officer)
<u>/s/ Andrew R. Cichocki</u>	Andrew R. Cichocki	Director
<u>/s/ Paula M. Harris</u>	Paula M. Harris	Director
<u>/s/ Linda A. Harty</u>	Linda A. Harty	Director
<u>/s/ Paul E. Mahoney</u>	Paul E. Mahoney	Director
<u>/s/ Michael L. Molinini</u>	Michael L. Molinini	Director
<u>/s/ David M. Sagehorn</u>	David M. Sagehorn	Director
<u>/s/ Spencer S. Stiles</u>	Spencer Stiles	Director
<u>/s/ Roger A. Strauch</u>	Roger A. Strauch	Director

Date: February 24, 2023 February 28, 2024

INDEX TO FINANCIAL STATEMENTS

Audited Consolidated Financial Statements:

Reports of Independent Registered Public Accounting Firm	F-1
Consolidated Balance Sheets	F-5
Consolidated Statements of Income	F-7
Consolidated Statements of Comprehensive Income	F-9
Consolidated Statements of Cash Flows	F-10
Consolidated Statements of Equity	F-12
Notes to Consolidated Financial Statements	F-14

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Chart Industries, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Chart Industries, Inc. and subsidiaries (the "Company" "Company") as of December 31, 2022 December 31, 2023 and 2021, 2022, the related consolidated statements of income, comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2022 December 31, 2023, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements" "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 December 31, 2023 and 2021, 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's Company's internal control over financial reporting as of December 31, 2022 December 31, 2023, based on criteria established in Internal Control—Control — Integrated Framework (2013) issued by the

Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 24, 2023 February 28, 2024, expressed an unqualified opinion on the Company's internal control over financial reporting.

Adoption of New Accounting Standard

As discussed in Note 2 to the financial statements, the Company has changed its method for accounting for convertible instruments as a result of the adoption of Accounting Standards Update (ASU) No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entities Own Equity (Subtopic 815-40)* effective January 1, 2021 using the modified retrospective transition approach.

Basis for Opinion

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue—Contracts Recognized Over Time—Refer to Notes 2 and 5 to the financial statements

Critical Audit Matter Description

As of December 31, 2022 December 31, 2023, net sales were \$1,612.4 million \$3,352.5 million, of which \$831.3 million \$2,146.7 million was recognized over time. For contracts that contain language that transfers control to the customer over time, revenue is recognized as the Company satisfies the performance obligations by an allocation of the transaction price to the accounting period computed using input methods such as costs incurred.

The input method measures progress toward the satisfaction of the performance obligation by multiplying the transaction price allocated to the performance obligation by the percentage of incurred inputs as of the balance sheet date to the total estimated inputs at completion after giving effect to the most current estimates.

We identified revenue associated with in-process contracts recognized over time as a critical audit matter because of the judgments necessary for management to estimate total inputs used to recognize revenue for these contracts. Management's estimates of total inputs are subjective in nature resulting in a higher degree of audit effort and judgment. Changes in estimated inputs could have a significant impact on the timing of revenue recognition.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to estimates of total inputs used to recognize revenue for contracts over time for in-process contracts included the following, among others:

- We tested the effectiveness of controls over certain revenue contracts recognized over time, including management's controls over the estimates of total inputs.
- We selected a sample of in process in-process revenue contracts recognized over time and performed the following:
 - Tested the accuracy and completeness of the inputs incurred to date.
 - Evaluated the estimates of total inputs by:
 - Comparing estimates of total inputs to the original project budget and understanding changes in estimates.
 - Testing the accuracy of the remaining estimated costs by selecting costs, vouching the costs to supplier contracts or other supporting documents, and evaluating whether the estimated costs are appropriate.
 - Evaluating management's ability to achieve the estimates of total inputs by performing corroborating inquiries with the Company's project managers, engineers, and other relevant site personnel to understand the progress to date and the estimate of total inputs.
 - Comparing management's estimates for the selected contracts to inputs of similar contracts, when applicable.
- We evaluated management's ability to estimate total inputs accurately by comparing actual inputs to management's historical estimates for contracts that have been fulfilled.

Goodwill — Refer to Notes 2 and 9 to the financial statements

Critical Audit Matter Description

The Company's evaluation of goodwill for impairment involves the comparison of the fair value of each reporting unit to its carrying value annually in the fourth quarter or whenever events or changes in circumstances indicate that an evaluation should be completed. The Company determines the fair value of its reporting units using the income and market

approaches. The determination of the fair value using the income approach requires management to make significant estimates and assumptions related to forecasts of future cash flows and discount rates. The determination of the fair value using the market approach requires management to make significant assumptions related to pricing multiples derived from similar companies. Changes to the assumptions and estimates may result in a significantly different estimate of the fair value of the reporting units, which could result in a different assessment of the recoverability of goodwill. The goodwill balance was \$977.3 million \$2,809.3 million as of October 1, 2022 October 1, 2023 (the annual impairment testing date), of which \$71.1 million \$198.4 million, \$426.1 million \$451.3 million, \$301.8 million \$577.2 million, and \$178.3 million \$1,582.4 million was allocated to the Cryo Tank Solutions, Heat Transfer Systems, Specialty Products, and Repair, Service & Leasing reporting units, respectively. The fair values of Cryo Tank Solutions, Heat Transfer Systems, Specialty Products, and Repair, Service & Leasing reporting units exceeded their carrying values as of the measurement date and, therefore, no impairment was recognized.

We identified goodwill for Repair, Service & Leasing and Cryo Tank Solutions as a critical audit matter because of the significant estimates and assumptions management makes to estimate the fair value of the reporting unit, the sensitivity of the valuation to changes in the assumptions, specifically related to the discount rate used in the income approach and the selection of pricing multiples for similar companies used in the market approach. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of these assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the selection of pricing multiples and discount rate included the following, among others:

- With We tested the assistance effectiveness of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) valuation assumptions, including discount rate and pricing multiples by:
 - Testing the source information underlying controls over the determination of the discount rate and pricing multiples and testing the mathematical accuracy of the calculation.
 - Developing a range of independent estimates and comparing those to the discount rate and pricing multiples selected by management.

Indefinite-Lived Intangible Assets — Refer to Notes 2 and 9 to the financial statements

Critical Audit Matter Description

The Company has trademarks and trade names that are indefinite-lived intangible assets. As of October 1, 2022 (the annual impairment testing date), the carrying value of the trademarks and trade names was \$154.5 million. Management estimates the fair value of the trademarks and trade names annually in the fourth quarter or whenever events or changes in circumstances indicate that an evaluation should be completed, using a relief from royalty method, which is a specific discounted cash flow method. The determination of the fair value requires management to make significant estimates and assumptions related to forecasts of future revenues and discount rates to estimate the royalty savings. Changes in these assumptions could have a significant impact on the fair value of trademarks and trade names and a significant change in fair value could cause a significant impairment.

We identified trademarks and trade names related to Air-X-Changers as a critical audit matter because of the significant estimates and assumptions management makes to estimate the fair value of the trademark and trade name, and the sensitivity of the valuation to changes in the assumptions related to forecasts of future revenues and selection of the discount rates used in the relief from royalty method. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of these assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the forecasts of future revenues and the selection of the discount rate included the following, among others:

- We evaluated management's ability to accurately forecast future revenues by comparing actual results to management's historical forecasts.
- We evaluated the reasonableness of management's forecast of future revenue by comparing the forecasts of future revenue to (1) historical results, (2) internal communications to management and the Board of Directors, and (3) forecasted information included in the Company press releases as well as in analyst and industry reports of the Company and companies in its peer group.
- We considered the impact of changes in the industry on management's forecasts of future revenues, pricing multiples.
 - With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) valuation assumptions, specifically the discount rate and pricing multiples by:
 - Testing the source information underlying the determination of the discount rate and pricing multiples and testing the mathematical accuracy of the calculation.
 - Developing a range of independent estimates and comparing those to the discount rate and pricing multiples selected by management.

Business Combinations – Refer to Notes 2 and 14 to the financial statements

Critical Audit Matter Description

The Company completed the acquisition of Howden for \$4,387.4 million on March 17, 2023. The Company accounted for this acquisition under the acquisition method of accounting for business combinations. Accordingly, the purchase price was allocated to the assets acquired and liabilities assumed based on their respective fair values, including a customer relationship intangible of \$1,588.0 million, technology intangibles of \$311.0 million, and trade name intangibles of \$498.0 million. Management estimated the fair value of the customer relationship intangible asset using the multi-period excess earnings method and estimated the fair value of the technology and trade name intangibles using the relief from royalty method. The determination of fair value of these assets involved management making significant estimates and assumptions related to the discount rate and royalty rate.

We identified the initial valuation of the customer relationship intangible, technology intangibles and trade name intangibles for Howden as a critical audit matter. A high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, was required when performing audit procedures to evaluate the reasonableness of management's selected discount rate used in determining the fair value for the customer relationship intangible, technology intangibles, and trade name intangibles and royalty rate used in determining the fair value for the technology intangibles and trade name intangibles.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the selection of the discount rate for the customer relationship intangible, technology intangibles, and trade name intangibles and royalty rate for the technology intangibles and trade name intangibles included the following, among others:

- We tested the effectiveness of controls over the valuation of the customer relationship intangible, technology intangibles and trade name intangibles, specifically management's controls over the selection of the discount rates and royalty rates.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodologies, (2) discount rate, and (3) royalty rate by:
 - Testing the source information underlying the determination of the discount rate and royalty rate and testing the mathematical accuracy of the calculation.
 - Developing a range of independent estimates and comparing those to the discount rate rates and royalty rates selected by management.

/s/ Deloitte & Touche LLP

Atlanta, Georgia

February 24, 2023 28, 2024

We have served as the Company's auditor since 2019.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Chart Industries, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Chart Industries, Inc. and subsidiaries (the "Company") as of December 31, 2022 December 31, 2023, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022 December 31, 2023, based on criteria established in *Internal Internal Control—Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022 December 31, 2023, of the Company and our report dated February 24, 2023 February 28, 2024, expressed an unqualified opinion on those financial statements.

As described in Management's Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at CSC Cryogenic Service Center AB, Howden, which was acquired on May 16, 2022 and Fronti Fabrications, Inc., which was acquired on May 31, 2022, March 17, 2023 and whose combined financial statements constitute \$26.5 million \$6,005.0 million and \$23.9 million \$4,058.7 million of total and net assets, respectively, as of December 31, 2022 December 31, 2023, and \$2.0 million \$1,537.9 million and \$0.2 million \$188.5 million of sales and operating loss, income, respectively, for the year then ended. Accordingly, our audit did not include the internal control over financial reporting at CSC Cryogenic Service Center AB and Fronti Fabrications, Inc. Howden.

Basis for Opinion

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ Deloitte & Touche LLP

Atlanta, Georgia

February 24, 2023 28, 2024

CHART INDUSTRIES, INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

(Dollars in millions, except per share amounts)

		December 31,		December 31,	
		2022	2021	2023	2022
ASSETS	ASSETS				
Current Assets	Current Assets				
Current Assets					
Current Assets					
Cash and cash equivalents					
Cash and cash equivalents					
Cash and cash equivalents	Cash and cash equivalents	\$ 663.6	\$ 122.2		
Restricted cash	Restricted cash	1,941.7	0.2		
Accounts receivable, less allowances of \$4.5 and \$6.0, respectively	Accounts receivable, less allowances of \$4.5 and \$6.0, respectively	278.4	236.3		
Accounts receivable, less allowances of \$5.9 and \$4.5, respectively	Accounts receivable, less allowances of \$5.9 and \$4.5, respectively				
Inventories, net	Inventories, net	357.9	321.5		
Unbilled contract revenue	Unbilled contract revenue	133.7	93.5		
Prepaid expenses	Prepaid expenses	37.5	20.9		
Insurance receivable	Insurance receivable	234.4	—		
Other current assets	Other current assets	43.7	58.9		
Total Current Assets	Total Current Assets	3,690.9	853.5		
Property, plant and equipment, net	Property, plant and equipment, net	430.0	416.0		
Goodwill	Goodwill	992.0	994.6		
Identifiable intangible assets, net	Identifiable intangible assets, net	535.3	556.1		
Equity method investments	Equity method investments	93.0	99.6		
Investments in equity securities	Investments in equity securities	96.5	77.8		
Other assets	Other assets	64.2	46.2		
TOTAL ASSETS	TOTAL ASSETS	\$5,901.9	\$3,043.8		
LIABILITIES AND EQUITY					

LIABILITIES AND EQUITY			
LIABILITIES AND EQUITY	LIABILITIES AND EQUITY		
Current Liabilities	Current Liabilities		
Current Liabilities			
Accounts payable			
Accounts payable			
Accounts payable	Accounts payable	\$ 211.1	\$ 175.9
Customer advances and billings in excess of contract revenue	Customer advances and billings in excess of contract revenue	170.6	148.5
Accrued salaries, wages and benefits	Accrued salaries, wages and benefits	31.5	27.1
Accrued interest			
Accrued income taxes	Accrued income taxes	3.5	16.1
Current portion of warranty reserve	Current portion of warranty reserve	4.1	9.7
Current convertible notes		256.9	255.9
Current portion of long-term debt			
Operating lease liabilities, current	Operating lease liabilities, current	5.4	5.8
Accrued legal settlement	Accrued legal settlement	305.6	—
Other current liabilities	Other current liabilities	92.9	54.9
Total Current Liabilities	Total Current Liabilities	1,081.6	693.9
Long-term debt	Long-term debt	2,039.8	600.8
Long-term deferred tax liabilities	Long-term deferred tax liabilities	46.1	59.8
Accrued pension liabilities	Accrued pension liabilities	0.9	1.6
Operating lease liabilities, non-current	Operating lease liabilities, non-current	15.6	21.4

Other long-term liabilities	Other long-term liabilities	33.6	41.1
Total Liabilities	Total Liabilities	3,217.6	1,418.6

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Dollars in millions, except per share amounts)

	December 31,	
	2022	2021
Equity		
Preferred stock, par value \$0.01 per share, \$1,000 aggregate liquidation preference — 10,000,000 shares authorized, 402,500 and 0 shares issued and outstanding at December 31, 2022 and 2021, respectively	—	—
Common stock, par value \$0.01 per share — 150,000,000 shares authorized, 42,563,032 and 36,548,330 shares issued and outstanding at December 31, 2022 and 2021, respectively	0.4	0.4
Additional paid-in capital	1,850.2	779.0
Treasury Stock; 760,782 shares at both December 31, 2022 and 2021	(19.3)	(19.3)
Retained earnings	902.2	878.2
Accumulated other comprehensive loss	(58.0)	(21.7)
Total Chart Industries, Inc. Shareholders' Equity	2,675.5	1,616.6
Noncontrolling interests	8.8	8.6
Total Equity	2,684.3	1,625.2
TOTAL LIABILITIES AND EQUITY	\$ 5,901.9	\$ 3,043.8

	December 31,	
	2023	2022
Equity		
Preferred stock, par value \$0.01 per share, \$1,000 aggregate liquidation preference — 10,000,000 shares authorized, 402,500 shares issued and outstanding at December 31, 2023 and 2022, respectively	—	—
Common stock, par value \$0.01 per share — 150,000,000 shares authorized, 42,754,241 and 42,563,032 shares issued and outstanding at December 31, 2023 and 2022, respectively	0.4	0.4
Additional paid-in capital	1,872.5	1,850.2
Treasury stock; 760,782 shares at both December 31, 2023 and 2022	(19.3)	(19.3)
Retained earnings	922.1	902.2
Accumulated other comprehensive income (loss)	10.8	(58.0)
Total Chart Industries, Inc. Shareholders' Equity	2,786.5	2,675.5
Noncontrolling interests	152.5	8.8
Total Equity	2,939.0	2,684.3
Total Liabilities and Equity	\$ 9,102.4	\$ 5,901.9

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

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Dollars and shares in millions, except per share amounts)

Year Ended December 31,			Year Ended December 31,		
2022	2021	2020	2023	2022	2021

Sales	Sales	\$1,612.4	\$1,317.7	\$1,177.1
Cost of sales	Cost of sales	1,205.0	993.5	845.0
Gross profit	Gross profit	407.4	324.2	332.1
Selling, general and administrative expenses	Selling, general and administrative expenses	214.5	196.8	178.2
Amortization expense	Amortization expense	41.4	38.9	45.7
Asset impairments		—	—	16.0
Operating expenses				
Operating expenses				
Operating expenses	Operating expenses	255.9	235.7	239.9
Operating income	Operating income	151.5	88.5	92.2
Acquisition related finance fees	Acquisition related finance fees	37.0	—	—
Interest expense, net	Interest expense, net	28.8	10.7	17.7
Financing costs amortization	Financing costs amortization	2.9	8.3	4.3
Unrealized gain on investment in equity securities		(13.1)	(3.2)	(13.1)
Realized gain on equity method investment		(0.3)	—	—
Loss on extinguishment of debt				
Unrealized loss (gain) on investment in equity securities				
Realized gain on equity method investments				
Realized gain on investment in equity securities	Realized gain on investment in equity securities	—	(2.6)	—
Foreign currency (gain) loss	Foreign currency (gain) loss	(0.8)	0.9	0.9
Gain on bargain purchase		—	—	(5.0)
Other (income) expense, net	Other (income) expense, net	(1.9)	0.3	2.2

Income from continuing operations before income taxes and equity in earnings of unconsolidated affiliates, net	Income from continuing operations before income taxes and equity in earnings of unconsolidated affiliates, net	98.9	74.1	85.2
Income tax expense (benefit):	Income tax expense (benefit):			
Current	Current	17.6	21.4	13.9
Current	Current			
Deferred	Deferred	(1.7)	(7.9)	1.0
Income tax expense, net	Income tax expense, net	15.9	13.5	14.9
Income from continuing operations before equity in earnings of unconsolidated affiliates, net	Income from continuing operations before equity in earnings of unconsolidated affiliates, net	83.0	60.6	70.3
Equity in (loss) earnings of unconsolidated affiliates, net	Equity in (loss) earnings of unconsolidated affiliates, net	(0.4)	0.3	—
Equity in earnings (loss) of unconsolidated affiliates, net	Equity in earnings (loss) of unconsolidated affiliates, net			
Net income from continuing operations	Net income from continuing operations	82.6	60.9	70.3
(Loss) income from discontinued operations, net of tax	(Loss) income from discontinued operations, net of tax	(57.6)	—	239.2
Loss from discontinued operations, net of tax	Loss from discontinued operations, net of tax			
Net income	Net income	25.0	60.9	309.5
Less: Income attributable to noncontrolling interests of continuing operations, net of taxes	Less: Income attributable to noncontrolling interests of continuing operations, net of taxes	1.0	1.8	1.4
Net income attributable to Chart Industries, Inc.	Net income attributable to Chart Industries, Inc.	\$ 24.0	\$ 59.1	\$ 308.1
Net income attributable to Chart Industries	Net income attributable to Chart Industries			

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Dollars and shares in millions, except per share amounts)

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
Amounts attributable to Chart common stockholders	Amounts attributable to Chart common stockholders						
Income from continuing operations	Income from continuing operations	\$81.6	\$59.1	\$ 68.9			
Income from continuing operations							
Income from continuing operations							
Less: Mandatory convertible preferred stock dividend requirement	Less: Mandatory convertible preferred stock dividend requirement	1.4	—	—			
Income from continuing operations attributable to Chart	Income from continuing operations attributable to Chart	80.2	59.1	68.9			
(Loss) income from discontinued operations, net of tax	(Loss) income from discontinued operations, net of tax	(57.6)	—	239.2			
Loss from discontinued operations, net of tax							
Net income attributable to Chart common stockholders	Net income attributable to Chart common stockholders	\$22.6	\$59.1	\$308.1			
Basic earnings per common share attributable to Chart Industries, Inc.	Basic earnings per common share attributable to Chart Industries, Inc.						
Basic earnings per common share attributable to Chart Industries, Inc.							
Basic earnings per common share attributable to Chart Industries, Inc.							
Income from continuing operations	Income from continuing operations	\$2.21	\$1.66	\$ 1.95			
(Loss) income from discontinued operations	(Loss) income from discontinued operations	(1.59)	—	6.76			
Income from continuing operations							

Income from continuing operations				
Loss from discontinued operations				
Net income attributable to Chart Industries, Inc.	Net income attributable to Chart Industries, Inc.	\$0.62	\$1.66	\$ 8.71
Diluted earnings per common share attributable to Chart Industries, Inc.	Diluted earnings per common share attributable to Chart Industries, Inc.			
Income from continuing operations	Income from continuing operations	\$1.92	\$1.44	\$ 1.89
(Loss) income from discontinued operations		(1.38)	—	6.56
Income from continuing operations				
Income from continuing operations				
Loss from discontinued operations				
Net income attributable to Chart Industries, Inc.	Net income attributable to Chart Industries, Inc.	\$0.54	\$1.44	\$ 8.45
Weighted-average number of common shares outstanding:	Weighted-average number of common shares outstanding:			
Basic	Basic	36.25	35.61	35.38
Basic				
Basic				
Diluted	Diluted	41.80	41.11	36.45

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

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in millions)

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
Net income	Net income	\$ 25.0	\$60.9	\$309.5			
Other comprehensive (loss) income:							
Other comprehensive income (loss):							

Foreign currency translation adjustments				
Foreign currency translation adjustments				
Foreign currency translation adjustments	Foreign currency translation adjustments	(35.3)	(29.0)	38.8
Defined benefit pension plan:	Defined benefit pension plan:			
Actuarial (loss) gain on remeasurement		(1.7)	5.9	(1.9)
Actuarial gain (loss) on remeasurement				
Actuarial gain (loss) on remeasurement				
Actuarial gain (loss) on remeasurement				
Amortization of net loss	Amortization of net loss	0.5	1.0	1.2
Defined benefit pension plan	Defined benefit pension plan	(1.2)	6.9	(0.7)
Other comprehensive (loss) income, before tax		(36.5)	(22.1)	38.1
Other comprehensive income (loss), before tax				
Income tax (expense) benefit related to defined benefit pension plan	Income tax (expense) benefit related to defined benefit pension plan	0.2	(2.0)	0.2
Other comprehensive (loss) income, net of taxes		(36.3)	(24.1)	38.3
Comprehensive (loss) income		(11.3)	36.8	347.8
Other comprehensive income (loss), net of taxes				
Comprehensive income (loss)				
Less: Comprehensive income attributable to noncontrolling interests, net of taxes	Less: Comprehensive income attributable to noncontrolling interests, net of taxes	(1.0)	(1.8)	(1.4)
Comprehensive (loss) income attributable to Chart Industries, Inc.		<u>\$(12.3)</u>	<u>\$35.0</u>	<u>\$346.4</u>
Comprehensive income (loss) attributable to Chart Industries, Inc.				

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

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in millions)

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
OPERATING ACTIVITIES	OPERATING ACTIVITIES						
Net income	Net income	\$ 25.0	\$ 60.9	\$309.5			
Net income							
Net income							
Less: Loss from discontinued operations, net of tax							
Income from continuing operations							
Adjustments to reconcile net income to net cash provided by operating activities:	Adjustments to reconcile net income to net cash provided by operating activities:						
Bridge loan facility fees							
Bridge loan facility fees							
Bridge loan facility fees							
Depreciation and amortization	Depreciation and amortization	81.9	80.6	85.2			
Employee share-based compensation expense	Employee share-based compensation expense	10.6	11.2	8.9			
Financing costs amortization	Financing costs amortization	2.9	8.3	4.3			
Interest accretion of convertible notes discount		—	—	8.0			
Unrealized gain on investment in equity securities		(13.1)	(3.2)	(13.1)			
Realized gain on equity method investment	Realized gain on equity method investment	(0.3)	—	—			
Realized gain on investment in equity securities		—	(2.6)	—			
Unrealized foreign currency transaction (gain) loss		(4.1)	(1.1)	2.3			
Equity in loss (earnings) of unconsolidated affiliates, net		0.5	(0.3)	—			
Deferred income tax expense (benefit)		(1.7)	(7.9)	1.0			
Gain on sale of business		—	—	(249.4)			

Asset impairments		—	—	16.0
Gain on bargain purchase		—	—	(5.0)
Realized gain on equity method investment				
Realized gain on equity method investment				
Unrealized foreign currency transaction gain				
Unrealized loss (gain) on investments in equity securities				
Realized gain on investments in equity securities				
Equity in (earnings) loss of unconsolidated affiliates				
Deferred income tax benefit				
Other non-cash operating activities				
Other non-cash operating activities				
Other non-cash operating activities	Other non-cash operating activities	11.3	(4.8)	1.5
Changes in assets and liabilities, net of acquisitions:	Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	Accounts receivable	(45.3)	(31.2)	(10.1)
Inventory		(48.7)	(78.1)	(34.9)
Unbilled contract revenue and other assets		(315.4)	(71.2)	(5.0)
Accounts receivable				
Accounts receivable				
Inventories				
Unbilled contract revenues and other assets				
Accounts payable and other liabilities	Accounts payable and other liabilities	349.3	(10.4)	62.8

Customer advances and billings in excess of contract revenue	Customer advances and billings in excess of contract revenue	27.9	28.5	(9.3)
Net Cash Provided By (Used In) Continuing Operating Activities				
Net Cash Used In Discontinued Operating Activities				
Net Cash Provided By (Used In) Operating Activities	Net Cash Provided By (Used In) Operating Activities	80.8	(21.3)	172.7
INVESTING ACTIVITIES	INVESTING ACTIVITIES			
Proceeds from sale of businesses		—	—	317.5
Acquisition of businesses, net of cash acquired		(25.8)	(205.1)	(51.9)
Acquisition of business, net of cash acquired				
Acquisition of business, net of cash acquired				
Acquisition of business, net of cash acquired				
Proceeds from sale of businesses, net of cash divested				
Capital expenditures				
Investments	Investments	(9.9)	(103.9)	(50.8)
Capital expenditures		(74.2)	(52.7)	(37.9)
Cash received from settlement of cross-currency swap agreement				
Proceeds from sale of assets	Proceeds from sale of assets	—	—	7.9
Cash received from settlement of cross-currency swap agreements		9.4	—	—
Government grants and other	Government grants and other	(1.1)	0.5	0.2
Net Cash (Used In) Provided By Investing Activities		(101.6)	(361.2)	185.0

Net Cash
Used In
Continuing
Investing
Activities

Net Cash
Used In
Discontinued
Investing
Activities

Net Cash
Used In
Investing
Activities

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in millions)

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
FINANCING ACTIVITIES	FINANCING ACTIVITIES						
Borrowings on senior secured and senior unsecured notes	Borrowings on senior secured and senior unsecured notes	1,940.0	—	—			
Borrowings on revolving credit facilities	Borrowings on revolving credit facilities	635.3	1,361.1	215.0			
Repayments on revolving credit facilities	Repayments on revolving credit facilities	(1,128.2)	(873.6)	(223.1)			
Borrowings on senior secured and senior unsecured notes	Borrowings on senior secured and senior unsecured notes						
Borrowings on senior secured and senior unsecured notes	Borrowings on senior secured and senior unsecured notes						
Borrowings on credit facilities	Borrowings on credit facilities						
Repayments on credit facilities	Repayments on credit facilities						
Borrowings on term loan	Borrowings on term loan						
Repayments on term loan	Repayments on term loan	—	(103.1)	(344.1)			
Payments for debt issuance costs	Payments for debt issuance costs	(4.7)	(3.0)	(1.0)			
Payment of contingent consideration	Payment of contingent consideration						

Proceeds from issuance of common stock, net	Proceeds from issuance of common stock, net	675.5	—	—
Proceeds from issuance of preferred stock, net	Proceeds from issuance of preferred stock, net	388.4	—	—
Payments for equity issuance costs	Payments for equity issuance costs	(0.7)	—	—
Proceeds from exercise of stock options	Proceeds from exercise of stock options	2.2	6.9	11.0
Common stock repurchases from share-based compensation plans	Common stock repurchases from share-based compensation plans	(3.6)	(6.4)	(1.9)
Common stock repurchases ⁽²⁾		—	—	(19.3)
Dividend distribution to noncontrolling interests				
Dividends paid on mandatory convertible preferred stock				
Net Cash Provided By Financing Activities				
Effect of exchange rate changes on cash and cash equivalents				
Net Cash Provided By (Used in) Financing Activities		2,504.2	381.9	(363.4)
Effect of exchange rate changes on cash and cash equivalents		(0.5)	(3.1)	11.8
Net increase (decrease) in cash, cash equivalents, restricted cash, and restricted cash equivalents ⁽³⁾		2,482.9	(3.7)	6.1
Net decrease in cash, cash equivalents, restricted cash, and restricted cash equivalents				
Net decrease in cash, cash equivalents, restricted cash, and restricted cash equivalents				

Net decrease in cash, cash equivalents, restricted cash, and restricted cash equivalents				
Cash, cash equivalents, restricted cash, and restricted cash equivalents at beginning of period	Cash, cash equivalents, restricted cash, and restricted cash equivalents at beginning of period	122.4	126.1	120.0
CASH, CASH EQUIVALENTS, RESTRICTED CASH, AND RESTRICTED CASH EQUIVALENTS AT END OF PERIOD ⁽⁴⁾		<u>\$2,605.3</u>	<u>\$ 122.4</u>	<u>\$126.1</u>
CASH, CASH EQUIVALENTS, RESTRICTED CASH, AND RESTRICTED CASH EQUIVALENTS AT END OF PERIOD ⁽²⁾				

⁽¹⁾ Includes \$37.0 of acquisition related financing fees for the year ended December 31, 2022.

⁽²⁾ Includes \$19.3 in shares repurchased through our share repurchase program. On March 11, 2021, the share repurchase program expired with no further repurchases. Refer to Note 2, "Significant Accounting Policies" for further information.

⁽³⁾ Net increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents represents cash flows of consolidated operations for all periods presented. For cash flows of discontinued operations, refer to Note 3, "Discontinued Operations."

⁽⁴⁾ Includes cash and restricted cash equivalents of \$12.8, \$1,941.7 and \$0.2 classified within restricted cash on our consolidated balance sheet sheets as of December 31, 2022, December 31, 2023, 2022 and December 31, 2021, 2021, respectively. For further information regarding restricted cash and restricted cash equivalents balances, refer to Note 10, "Debt and Credit Arrangements."

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

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(Dollars and shares in millions)

	Common Stock		Preferred Stock		Accumulated						Total Shareholders' Equity
	Shares Outstanding	Amount	Shares Outstanding	Amount	Additional Paid-in Capital	Treasury Stock	Retained Earnings	Other	Noncontrolling Interests		
								Comprehensive			
								(Loss) Income			
Balance at December 31, 2019	35.80	\$ 0.4	—	\$ —	\$ 762.8	\$ —	\$ 500.3	\$ (35.9)	\$ 4.8	\$ 1,232.4	
Net income	—	—	—	—	—	—	308.1	—	1.4	309.5	
Other comprehensive income	—	—	—	—	—	—	—	38.3	—	38.3	
Share-based compensation expense	—	—	—	—	8.9	—	—	—	—	8.9	
Common stock issued from share-based compensation plans	0.42	—	—	—	11.0	—	—	—	—	11.0	
Common stock repurchases from share-based compensation plans	(0.03)	—	—	—	(1.9)	—	—	—	—	(1.9)	

Common stock repurchases ⁽¹⁾		—	—	—	—	—	(19.3)	—	—	—	(19.3)
Other		—	—	—	—	—	—	—	—	0.4	0.4
Common Stock											
Shares											
Outstanding											
Shares											
Outstanding											

Preferred stock issuance, net of equity issuance costs	Preferred stock issuance, net of equity issuance costs	—	—	0.4	—	388.1	—	—	—	—	388.1
Share-based compensation expense	Share-based compensation expense	—	—	—	—	10.6	—	—	—	—	10.6
Common stock issued from share-based compensation plans	Common stock issued from share-based compensation plans	0.11	—	—	—	2.2	—	—	—	—	2.2
Common stock repurchases from share-based compensation plans	Common stock repurchases from share-based compensation plans	(0.02)	—	—	—	(3.6)	—	—	—	—	(3.6)
Acquisition of Earthly Labs Inc.	Acquisition of Earthly Labs Inc.	—	—	—	—	(1.2)	—	—	—	—	(1.2)
Other	Other	—	—	—	—	—	—	—	—	(0.8)	(0.8)
Balance at December 31, 2022	Balance at December 31, 2022	<u>42.56</u>	<u>\$ 0.4</u>	<u>0.4</u>	<u>\$ —</u>	<u>\$ 1,850.2</u>	<u>\$ (19.3)</u>	<u>\$ 902.2</u>	<u>\$ (58.0)</u>	<u>\$ 8.8</u>	<u>\$ 2,684.3</u>
Net income											
Other comprehensive income											
Common stock issuance, net of equity issuance costs											
Share-based compensation expense											
Share-based compensation expense											
Share-based compensation expense											
Common stock issued from share-based compensation plans											
Common stock repurchases from share-based compensation plans											
Preferred stock dividends											

CHART INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(Dollars and shares in millions)

	Common Stock		Preferred Stock							
	Shares Outstanding	Amount	Shares Outstanding	Amount	Additional Paid-in Capital	Treasury Stock	Retained Earnings	Accumulated	Noncontrolling Interests	Total Shareholders' Equity
								Other		
								Comprehensive Income (Loss)		
Purchase of noncontrolling interest	—	—	—	—	—	—	—	—	146.3	146.3
Dividend distribution to noncontrolling interest	—	—	—	—	—	—	—	—	(12.2)	(12.2)
Other	—	—	—	—	—	—	(0.1)	—	—	(0.1)
Balance at December 31, 2023	42.75	\$ 0.4	0.4	\$ —	\$ 1,872.5	\$ (19.3)	\$ 922.1	\$ 10.8	\$ 152.5	\$ 2,939.0

(1) Includes \$19.3 in shares repurchased through our share repurchase program. Refer to Note 2, "Significant Accounting Policies," for further information.

(2) Refer to Note 2, "Significant Accounting Policies" for discussion regarding cumulative Cumulative effect of change in accounting principle. principle refers to the impact of the adoption of Accounting Standards Update 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entities Own Equity (Subtopic 815-40)" in relation to our convertible notes due November 2024.

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

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Dollars and shares in millions, except per share amounts)

NOTE 1 — Nature of Operations and Principles of Consolidation

Nature of Operations: We are a leading independent global manufacturer of highly engineered cryogenic equipment servicing multiple applications leader in the industrial design, engineering, and manufacturing of process technologies and equipment for gas and liquid molecule handling for the Nexus of Clean™ – clean energy markets. power, clean water, clean food, and clean industrials, regardless of molecule. Our unique product portfolio across both stationary and rotating equipment is used in every phase of the liquid gas supply chain, including upfront engineering, service and repair. Being at the forefront of the clean energy transition, Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas, CO2 Capture carbon capture and water treatment, among other applications. We are committed to excellence in environmental, social and corporate governance (ESG) issues both for our company as well as our customers. With 29 over 64 global manufacturing locations and over 50 service centers from the United States to Asia, India and Europe, we maintain accountability and transparency to our team members, suppliers, customers and communities.

On March 17, 2023, we completed the acquisition of Howden ("Howden"), a leading global provider of mission critical air and gas handling products and services, from affiliates of KPS Capital Partners, LP. Results of operations include results of Howden from the date of acquisition and exclude Roots™ business financial results for our entire ownership period of March 17, 2023 through the divestiture date, August 18, 2023. The results of Roots™ are presented as discontinued operations in the consolidated statements of income and comprehensive income and have been excluded from both continuing operations and segment results for the year ended December 31, 2023. Furthermore, in 2023 we closed the sale of our American Fan, Cryo Diffusion and Cofimco fans businesses. See Note 3, "Discontinued Operations and Other Businesses Sold" for further information regarding these divestitures and Note 14, "Business Combinations", for further information regarding the acquisition of Howden (the "Howden Acquisition").

Principles of Consolidation: The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and include the accounts of Chart Industries, Inc. and its subsidiaries. Intercompany accounts and transactions are eliminated in consolidation.

Reclassifications: Certain amounts have been reclassified within the balance sheet as of December 31, 2022 and the consolidated statement of cash flows for year ended December 31, 2022 to conform with the current period presentation.

NOTE 2 — Significant Accounting Policies

Use of Estimates: The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements. These estimates may also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions. We have experienced temporary facility closures while awaiting appropriate government approvals in certain jurisdictions. The Covid-19 pandemic could also disrupt our assumptions based on a number of factors including the current macroeconomic conditions such as inflation and supply chain and materially adversely impact our ability to secure supplies for our facilities, which could materially adversely affect our operations. There may also be long-term effects disruptions, as well as risks set forth under Item 1A, "Risk Factors" of this Annual Report on our customers in and the economies of affected countries. As a result of these uncertainties, actual results could differ from those estimates and assumptions. If the economy or markets in which we operate remain weak or deteriorate further, our business, financial condition and results of operations may be materially and adversely impacted.

Share Repurchase Program: On March 11, 2020, our Board of Directors authorized a share repurchase program for up to \$75 million of the Company's common stock over the next twelve months through various means, including open market transactions, block purchases, privately negotiated transactions or otherwise in accordance with applicable federal securities laws, including Rule 10b-18 and Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. During the first quarter of 2020, we repurchased 0.76 shares of

our common stock at an average price of \$25.40 per share for a total purchase price of \$19.3. We suspended the program on March 20, 2020 in light of uncertainty resulting from the Covid-19 pandemic and the desire to conserve cash resources. On March 11, 2021, the share repurchase program expired with no further repurchases since the Suspension Date. Form 10-K.

Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents: We consider all investments with an initial maturity of three months or less when purchased to be cash equivalents. Restricted cash and restricted cash equivalents are included within restricted cash as of December 31, 2022, December 31, 2023 and December 31, 2021, 2022 in the accompanying consolidated balance sheets. For further information regarding restricted cash and restricted cash equivalents balances, refer to Note 10, "Debt and Credit Arrangements."

Accounts Receivable, Net of Allowances: Accounts receivable includes amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. We maintain an allowance for doubtful accounts credit losses to provide for the estimated amount of receivables that will not be collected. The allowance is based upon an assessment of customer creditworthiness, historical payment experience, the age of outstanding receivables and collateral to the extent applicable. In addition, we estimate expected credit losses based on historical loss information then adjust the estimates based on current, reasonable and supportable forecast economic conditions. Past-due trade receivable balances are written off when our internal collection efforts have been unsuccessful. As a practical expedient, we do not adjust the promised amount of consideration for the effects of a significant financing component when we expect, at contract inception, that the period between our transfer of a promised product or service to a customer and when the customer pays for that product or service will be one year or less. We do not typically include extended payment terms in our contracts with customers.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Inventories: Inventories are stated at the lower of cost or net realizable value with cost being determined by the first-in, first-out ("FIFO") method. We determine inventory valuation reserves based on a combination of factors. In circumstances where we are aware of a specific problem in the valuation of a certain item, a specific reserve is recorded to reduce the item to its net realizable value. We also recognize reserves based on the actual usage in recent history and projected usage in the near-term.

Unbilled Contract Revenue: Unbilled contract revenue represents contract assets resulting from revenue recognized over time in excess of the amount billed to the customer and the amount billed to the customer is not just subject to the passage of time. Billing requirements vary by contract but are generally structured around the completion of certain milestones. These contract assets are generally classified as current.

Property, Plant and Equipment: Capital expenditures for property, plant and equipment are recorded at cost. Expenditures for maintenance and repairs are charged to expense as incurred, whereas major improvements that extend the useful life are capitalized. The cost of applicable assets is depreciated over their estimated useful lives. Depreciation is computed using the straight-line method for financial reporting purposes and accelerated methods for income tax purposes.

Lessee Accounting: At lease inception, we determine if an arrangement is a lease and if it includes options to extend or terminate the lease if it is reasonably certain that the options will be exercised. Lease expense for lease payments is recognized on a straight-line basis over the lease term, term for operating leases. Operating leases are recognized as right-of-use ("ROU") assets and are included within property, plant and equipment, net, and lease liabilities are included in operating lease liabilities, current and operating lease liabilities, non-current in our consolidated balance sheets. Finance leases are recognized as ROU assets and are included within other assets. They are then amortized over the lesser of the lease term or useful economic life of the underlying asset. Operating lease liabilities are included as separate line items within the consolidated balance sheets. Finance lease liabilities are included within other current liabilities and other liabilities. ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease Lease ROU assets and liabilities are recognized on the lease commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available on the lease commencement date in determining the present value of lease payments.

Lessor Accounting: Similar to lessee accounting, at lease inception we determine if an arrangement is a lease. The net investment of our lease receivables is measured at the commencement date as the present value of the lease payments not yet received. Operating leases are reported at cost as equipment leased to others within property, plant and equipment, net in our consolidated balance sheets and depreciated based on their useful lives on a straight-line basis. Sales from sales-type and operating leases are presented net of sales tax and other related taxes. Interest income is recognized over the lease term using the effective interest method and is classified as interest expense, net in our consolidated statements of income, income. Lease payments from operating leases are recorded as income on a straight-line basis over the lease term.

Long-lived Assets: We monitor our property, plant, equipment, and finite-lived intangible assets for impairment indicators on an ongoing basis. Assets are grouped and tested at the lowest level for which identifiable cash flows are available. If impairment indicators exist, we perform the required analysis and record impairment charges, if applicable. In conducting our analysis, we compare the undiscounted cash flows expected to be generated from the long-lived assets to the related net book values. If the undiscounted cash flows exceed the net book value, the long-lived assets are considered not to be impaired. If the net book value exceeds the undiscounted cash flows, an impairment loss is measured and recognized. An impairment loss is measured as the difference between the net book value and the fair value of the long-lived assets. Fair value is estimated from discounted future net cash flows (for assets held and used) or net realizable value (for assets held for sale). Changes in economic or operating conditions impacting these estimates and assumptions could result in the impairment of long-lived assets. We amortize intangible assets that have finite lives over their estimated useful lives.

Goodwill and Indefinite-Lived Intangible Assets: Goodwill is recognized as the excess cost of an acquired entity over the net amount assigned to assets acquired and liabilities assumed. We do not amortize goodwill or indefinite-lived intangible assets, but review them for impairment annually in the fourth quarter or whenever events or changes in circumstances indicate that an evaluation should be completed.

Goodwill is analyzed on a reporting unit basis. The reporting units are the same as our operating and reportable segments, which are as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. We first evaluate qualitative factors, such as macroeconomic conditions and our overall financial performance

to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. We then evaluate

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

how significant each of the identified factors could be to the fair value or carrying amount of a reporting unit and weigh these factors in totality in forming a conclusion of whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount (the "Step 0 Test"). If we determine that it is not more likely than not that the fair value of a reporting unit

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

is less than its carrying amount, the first step of the goodwill impairment test is not necessary. Otherwise, we would proceed to the first step of the goodwill impairment test.

Alternatively, we may also bypass the Step 0 Test and proceed directly to the first step of the goodwill impairment test. Under the first step ("Step 1"), we estimate the fair value of the reporting units by considering income and market approaches to develop fair value estimates, which are weighted to arrive at a fair value estimate for each reporting unit. With respect to the income approach, a model has been developed to estimate the fair value of each reporting unit. This fair value model incorporates estimates of future cash flows, estimates of allocations of certain assets and cash flows among reporting units, estimates of future growth rates and management's judgment regarding the applicable discount rates to use to discount such estimates of cash flows. With respect to the market approach, a guideline company method is employed whereby pricing multiples are derived from companies with similar assets or businesses to estimate fair value of each reporting unit. If the fair value of the reporting unit exceeds the carrying amount of the net assets assigned to that reporting unit, then goodwill is not impaired and no further testing is required. However, if the fair value of the reporting unit is less than its carrying amount, the impairment charge is based on the excess of a reporting unit's carrying amount over its fair value (i.e., we would measure the charge based on the result from Step 1).

In order to assess the reasonableness of the calculated fair values of the reporting units, we also compare the sum of the reporting units' fair values to the market capitalization and calculate an implied control premium (the excess of the sum of the reporting units' fair values over the market capitalization). We evaluate the control premium by comparing it to control premiums of recent comparable transactions. If the implied control premium is not reasonable in light of this assessment, we reevaluate the fair value estimates of the reporting units by adjusting the discount rates and other assumptions as necessary.

Changes to the assumptions and estimates used throughout the steps described above may result in a significantly different estimate of the fair value of the reporting units, which could result in a different assessment of the recoverability of goodwill and result in future impairment charges.

With respect to indefinite-lived intangible assets, we first evaluate relevant events and circumstances to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. If, in weighing all relevant events and circumstances in totality, we determine that it is more likely than not that an indefinite-lived intangible asset is not impaired, no further action is necessary. Otherwise, we would determine the fair value of indefinite-lived intangible assets and perform a quantitative impairment assessment by comparing the indefinite-lived intangible asset's fair value to its carrying amount. We may bypass such a qualitative assessment and proceed directly to the quantitative assessment. We estimate the fair value of the indefinite-lived assets using the income approach. This may include the relief from royalty method or use of a model similar to the one described above related to goodwill which estimates the future cash flows attributed to the indefinite-lived intangible asset and then discounting these cash flows back to a present value. Under the relief from royalty method, fair value is estimated by discounting the royalty savings, as well as any tax benefits related to ownership to a present value. The fair value from either approach is compared to the carrying value and an impairment is recorded if the fair value is determined to be less than the carrying value.

Equity Method Investments: Investments, including certain of our joint ventures, where Chart has the ability to exercise significant influence over, but does not possess control, are accounted for using the equity method of accounting. Judgment regarding the level of influence over each investment includes considering key factors such as our ownership interest, our representation on the investee's board of directors and participation in policy-making decisions. We recognize the equity method investee's proportionate share of the earnings and losses and classify as equity in earnings of unconsolidated affiliates, net in our consolidated statements of income and comprehensive income. We evaluate our equity method investments for impairment whenever events or changes in circumstances indicate that the carrying amounts of such investments may not be recoverable. If a decline in the value of an equity method investment is determined to be other than temporary, an impairment loss is recognized in earnings for the amount by which the carrying amount of the investment exceeds its estimated fair value.

Investments in Equity Securities: We measure certain of our investments in equity securities where we have no significant influence and generally less than 20% ownership interest at fair value on a recurring basis according to the fair value hierarchy as defined below. We reassess measurement options for these investments on a quarterly basis. Mark-to-market fair value adjustments in these investments in equity securities are classified as unrealized loss (gain) on investments in equity securities

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

in our consolidated statements of income and comprehensive income. Investments in equity securities for which there is no readily determinable fair value are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Customer Advances and Billings in Excess of Contract Revenue: Our contract liabilities consist of advance customer payments, billings in excess of revenue recognized and deferred revenue. Our contract assets and liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period. We classify advance customer payments and billings in excess of revenue recognized as current. We classify deferred revenue as current or non-current based on the timing of when we expect to recognize revenue. The current portion of deferred revenue is included in customer advances and billings in excess of contract revenue in our consolidated balance sheets. Long-term deferred revenue is included in other long-term liabilities in our consolidated balance sheets.

Convertible Debt: The \$258.8 principal amount of the convertible notes due November 2024 is classified as a current liability in the consolidated balance sheet at December 31, 2023, and was also classified as a current liability in the consolidated balance sheet at December 31, 2022, since the holders of the convertible notes due November 2024 could have potentially converted their notes at their option during the three month period subsequent to December 31, 2022. We reassess the convertibility of the 2024 Notes and the related balance sheet classification on a quarterly basis. We amortize debt issuance costs over the term of the 2024 Notes using the effective interest method.

We use the if-converted method to compute diluted earnings per share for our convertible notes due November 2024 such that the denominator includes incremental shares that would be issued upon conversion. Refer to Note 10, "Debt and Credit Arrangements" for further discussion of our convertible notes.

Preferred Stock and Dividends: Preferred stock is evaluated to determine balance sheet classification, and all conversion and redemption features are evaluated for bifurcation treatment. Proceeds received net of issuance costs are recognized on the settlement date. Cash dividends become a liability once declared. Income available to common stockholders is computed by deducting from net income the dividends accumulated and earned during the period on cumulative preferred stock.

Financial Instruments: The fair values of cash equivalents, accounts receivable, accounts payable and short-term bank debt approximate their carrying amount because of the short maturity of these instruments.

To minimize credit risk from trade receivables, we review the financial condition of potential customers in relation to established credit requirements before sales credit is extended and monitor the financial condition and payment history of customers to help ensure timely collections and to minimize losses. Additionally, for certain domestic and foreign customers, we require advance payments, letters of credit, bankers' acceptances, and other such guarantees of payment. Certain customers also require us to issue letters of credit or performance bonds, particularly in instances where advance payments are involved, as a condition of placing the order.

Fair Value Measurements: We measure our financial assets and liabilities at fair value on a recurring basis using a three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies. The three levels of inputs used to measure fair value are as follows:

Level 1 — Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2 — Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 — Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

Derivative Financial Instruments: We utilize certain derivative financial instruments to enhance our ability to manage foreign currency risk that exists as part of ongoing business operations. Derivative instruments are entered into for periods consistent with related underlying exposures and do not constitute positions independent of those exposures. We do not enter into contracts for speculative purposes nor are we a party to any leveraged derivative instrument. We are exposed to foreign currency exchange risk as a result of transactions in currencies other than the functional currency of certain subsidiaries. We utilize foreign currency forward purchase and sale contracts to manage the volatility associated with foreign currency purchases and certain intercompany transactions in the normal course of business. Contracts typically have maturities of less than one year. Principal currencies include the U.S. dollar, the euro, the Chinese yuan, the Czech koruna, the Australian dollar, the British pound, the Canadian dollar, the Indian rupee, the Chilean peso, and the Japanese yen, South African rand. Our foreign currency forward contracts do not qualify as hedges as defined by accounting guidance. Foreign currency forward contracts are measured at fair value and recorded on the consolidated balance sheets as other current liabilities or assets. Changes in their fair value are recorded in the consolidated statements of income as foreign currency gains or losses. Our foreign currency forward contracts are not

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

hedges as defined by accounting guidance. Foreign currency forward contracts are measured at fair value and recorded on the consolidated balance sheets as other long-term liabilities, other current liabilities, other assets or other current assets. Changes in their fair value are recorded in the consolidated statements of income as foreign currency gains or losses. Our foreign currency forward contracts are not exchange traded instruments and, accordingly, the valuation is performed using Level 2 inputs as defined above. Gains or losses on settled or expired contracts are recorded in the consolidated statements of income as foreign currency gains or losses.

We enter into a combination of cross-currency swaps and foreign exchange collars as a net investment hedge of our investments in certain international subsidiaries that use the euro as their functional currency in order to reduce the volatility caused by changes in exchange rates. Our cross-currency swaps and foreign exchange collars are measured at fair value and recorded on the consolidated balance sheets within other assets or other long-term liabilities. Changes in fair value are recorded as foreign currency translation adjustments within accumulated other comprehensive loss. See Note 10, "Debt and Credit Arrangements," for further information regarding the cross-currency swaps and foreign exchange collars.

Our derivative contracts are subject to master netting arrangements or agreements between the Company and each counterparty for the net settlement of all contracts through a single payment in a single currency in the event of a default or termination of any one contract with that certain counterparty. It is our practice to recognize the gross amounts in the consolidated balance sheets.

Product Warranties: We provide product warranties with varying terms and durations for the majority of our products. We estimate product warranty costs and accrue for these costs as products are sold with a charge to cost of sales. Factors considered in estimating warranty costs include historical and projected warranty claims, historical and projected cost-per-claim, and knowledge of specific product issues that are outside of typical experience. Warranty accruals are evaluated and adjusted as necessary based on actual claims experience and changes in future claim and cost estimates.

Business Combinations: We account for business combinations in accordance with Accounting Standards Codification ("ASC") ASC 805, "Business Combinations." We recognize and measure identifiable assets acquired and liabilities assumed based on their estimated fair values. The excess of the consideration transferred over the fair value of the net assets acquired, including identifiable intangible assets, is assigned to goodwill. As additional information becomes available, we may further revise the preliminary acquisition consideration allocation during the remainder of the measurement period, which shall not exceed twelve months from the closing of the acquisition.

Identifiable finite-lived intangible assets generally consist of customer relationships, unpatented technology, patents and trademarks and trade names and are amortized over their estimated useful lives which generally range from 2 to 15 years. Identifiable indefinite-lived intangible assets generally consist of trademarks and trade names and are subject to impairment testing on at least an annual basis. We estimate the fair value of identifiable intangible assets under income approaches where the fair value models incorporate estimates of future cash flows, estimates of allocations of certain assets and cash flows, estimates of future growth rates, and management's judgment regarding the applicable discount rates to use to discount such estimates of cash flows. As such, acquisitions are classified as Level 3 fair value hierarchy measurements and disclosures.

We expense transaction related costs, including legal, consulting, accounting and other costs, in the periods in which the costs are incurred.

Revenue Recognition: Revenue is recognized when (or as) we satisfy performance obligations by transferring a promised good or service, an asset, to a customer. An asset is transferred to a customer when, or as, the customer obtains control over that asset. In most contracts, the transaction price includes both fixed and variable consideration. The variable consideration contained within our contracts with customers includes discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties and other similar items. When a contract includes variable consideration, we evaluate the estimate of the variable consideration to determine whether the estimate needs to be constrained; therefore, we include the variable consideration in the transaction price only to the extent that it is probable that a significant reversal of the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Variable consideration estimates are updated at each reporting date. When a contract includes multiple performance obligations, the contract price is allocated among the performance obligations based upon the stand alone selling prices. When the period between when we transfer a promised good or service to a customer and when the customer pays for that good or service is expected, at contract inception, to be one year or less, we do not adjust for the effects of a significant financing component.

For brazed aluminum heat exchangers, air cooled heat exchangers, cold boxes, liquefied natural gas fueling stations, engineered tanks, repair services, hydrogen solutions, water treatment systems

CHART INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and carbon capture systems, most shares in millions, except per share amounts)

In certain contracts, contain language that transfers control we are engaged to the customer over time, engineer and build highly-customized products and systems. In these circumstances, we produce an asset with no alternative use and have a right to payment for performance completed to date. For these contracts, revenue is recognized as we satisfy the performance obligations by an allocation of the transaction price to the accounting period computed using input methods such as costs incurred. Input methods recognize revenue on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation relative to the total expected inputs to the satisfaction of that performance obligation. The costs incurred input method measures progress toward the satisfaction of the performance obligation by multiplying the transaction price of the performance obligation by the percentage of incurred costs as of the balance sheet date to the total estimated costs at completion after giving effect to the most current estimates. Timing of amounts billed on contracts varies from contract to

CHART INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and shares in millions, except per share amounts)

contract and could cause significant variation in working capital needs. Revisions to estimated cost to complete that result from inefficiencies in our performance that were not expected in the pricing of the contract are expensed in the period in which these inefficiencies become known. Contract modifications can change a contract's scope, price, or both. Approved contract modifications are accounted for as either a separate contract or as part of the existing contract depending on the nature of the modification.

For standard industrial gas and LNG tanks and some products identified in the prior paragraph with other contracts, where contract language that does not meet the over time recognition requirements, the contract with the customer contains language that transfers control to the customer at a point in time. For these contracts, revenue is recognized when we satisfy our performance obligation to the customer. Timing of amounts billed on contracts varies from contract to contract. The specific point in time when control transfers depends on the contract with the customer, contract terms that provide for a present obligation to pay, physical possession, legal title, risk and rewards of ownership, acceptance of

the asset, and bill-and-hold arrangements may impact the point in time when control transfers to the customer. We recognize revenue under bill-and-hold arrangements when control transfers and the reason for the arrangement is substantive, the product is separately identified as belonging to the customer, the product is ready for physical transfer and we do not have the ability to use the product or direct it to another customer.

Incremental contract costs are expensed when incurred when the amortization period of the asset that would have been recognized is one year or less; otherwise, incremental contract costs are recognized as an asset and amortized over time as promised goods and services are transferred to a customer. When losses are expected to be incurred on a contract, we recognize the entire anticipated loss in the accounting period when the loss becomes evident. The loss is recognized when the current estimate of the consideration we expect to receive, modified to include unconstrained variable consideration instead of constrained variable consideration, is less than the current estimate of total costs for the contract.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction that are collected by us from a customer, are excluded from revenue.

Shipping and handling fee revenues and the related expenses are reported as fulfillment revenues and expenses for all customers because we have adopted the practical expedient contained in ASC 606-10-25-18B. Therefore, all shipping customers. Shipping and handling costs associated with outbound freight are accounted for as fulfillment costs and are included in cost of sales. Amounts billed to customers for shipping are classified as sales, and the related costs are classified as cost of sales on the consolidated statements of income. Shipping revenue of \$17.8, \$11.8, and \$10.6 for the years ended December 31, 2022, 2021 and 2020, respectively, are included in sales. Shipping costs of \$18.3, \$17.6, and \$15.0 for the years ended December 31, 2022, 2021 and 2020, respectively, are included in cost of sales. income.

Cost of Sales: Manufacturing expenses associated with sales are included in cost of sales. Cost of sales includes all materials, direct and indirect labor, inbound freight, purchasing and receiving, inspection, internal transfers, and distribution and warehousing of inventory. In addition, shop supplies, facility maintenance costs, manufacturing engineering, project management, and depreciation expense for assets used in the manufacturing process are included in cost of sales on the consolidated statements of income. income.

Selling, General and Administrative ("SG&A") Expenses: SG&A expenses include selling, marketing, customer service, product management and other administrative expenses not directly supporting the manufacturing process, as well as depreciation expense associated with non-manufacturing assets. In addition, SG&A expenses include corporate operating expenses for executive management, accounting, tax, treasury, corporate development, human resources, information technology, investor relations, legal, internal audit and risk management.

Advertising Costs: We incurred advertising costs of \$6.7, \$3.5, \$3.9, and \$2.7 \$3.9 for the years ended December 31, 2022 December 31, 2023, 2021 2022, and 2020, 2021, respectively. Such costs are expensed as incurred and included in SG&A expenses in the consolidated statements of income. income.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Research and Development Costs: We incurred research and development costs of \$23.3, \$13.5, \$12.7, and \$9.1 \$12.7 for the years ended December 31, 2022 December 31, 2023, 2021 2022, and 2020, 2021, respectively. Such costs are expensed as incurred and included in SG&A expenses in the consolidated statements of income. income.

Foreign Currency Translation: The functional currency for the majority of our foreign operations is the applicable local currency. The translation from the applicable foreign currencies to U.S. dollars is performed for asset and liability accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using the average exchange rate

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

during the period. The resulting translation adjustments are recorded as a component of other comprehensive (loss) income in the consolidated statements of comprehensive income. Certain of our foreign entities remeasure from local to functional currencies, which is then translated to the reporting currency of the Company. Remeasurement from local to functional currencies is included in cost of sales or foreign currency loss in the consolidated statements of income. income. Gains or losses resulting from foreign currency transactions are charged to net income in the consolidated statements of income as incurred.

Income Taxes: The Company and its U.S. subsidiaries file a consolidated federal income tax return. Deferred income taxes are provided for temporary differences between financial reporting and the consolidated tax return in accordance with the liability method. A valuation allowance is provided against net deferred tax assets when conditions indicate that it is more likely than not that the benefit related to such assets will not be realized. In assessing the need for a valuation allowance against deferred tax assets, we consider all available evidence, including past operating results, estimates of future taxable income, and the feasibility of tax planning strategies. In the event that we change our determination as to the amount of deferred tax assets that can be realized, the valuation allowance will be adjusted with a corresponding impact to the provision for income taxes in the period in which such determination is made.

We utilize a two-step approach for the recognition and measurement of uncertain tax positions. The first step is to evaluate the tax position and determine whether it is more likely than not that the position will be sustained upon examination by tax authorities. The second step is to measure the tax benefit as the largest amount that is more likely than not of being realized upon settlement.

Interest and penalties related to income taxes are accounted for as income tax expense in the consolidated statements of **income**.

We are subjected to a tax on Global Intangible Low Taxed Income ("GILTI"), which we record as a period cost as incurred.

Share-based Compensation: We measure share-based compensation expense for share-based payments to employees and directors, including grants of employee stock options, restricted stock, restricted stock units and performance units based on the grant-date fair value. The fair value of stock options is calculated using the Black-Scholes pricing model and is recognized on an accelerated basis over the vesting period. The grant-date fair value calculation under the Black-Scholes pricing model requires the use of variables such as exercise term of the option, future volatility, dividend yield, and risk-free interest rate. The fair value of restricted stock and restricted stock units is based on Chart's market price on the date of grant and is generally recognized on an accelerated basis over the vesting period. The fair value of performance units is based on Chart's market price on the date of grant and pre-determined performance **and market** conditions as determined by the Compensation Committee of the Board of Directors and is recognized on a straight-line basis over the performance measurement period based on the probability that the performance **and market** conditions will be achieved. We reassess the vesting probability of performance units each reporting period and adjust share-based compensation expense based on our probability assessment. Share-based compensation expense for all awards considers estimated forfeitures.

During the year, we may repurchase shares of common stock from equity plan participants to satisfy tax withholding obligations relating to the vesting or payment of equity awards. All such repurchased shares are retired in the period in which the repurchases occur.

Defined Benefit Pension Plans: We sponsor a defined benefit pension plan which includes the Chart Pension Plan, which has been frozen since February 2006 and **a noncontributory multiple defined benefit plan pension plans** that **we were** acquired as part of the Hudson acquisition (the "Hudson Plan"). The Hudson Plan is closed to new participants and not considered significant to our consolidated financial statements. The Hudson Plan merged into the Chart Plan as of February 28, 2021. **Howden Acquisition.**

The funded status is measured as the difference between the fair value of the plan assets and the projected benefit obligation. The change in the funded status of the plan is recognized in the year in which the change occurs through accumulated other comprehensive (loss) income. Our funding policy is to contribute at least the minimum funding amounts

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

required by law. Management has chosen policies according to accounting guidance that allow the use of a calculated value of plan assets, which generally reduces the volatility of expense (income) from changes in pension liability discount rates and the performance of the pension **plan's plans** assets.

Recently Issued Accounting Standards (Not Yet Adopted): In **June 2022, December 2023**, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures." The amendments in this update enhance the transparency and decision usefulness of income tax disclosures. This update enhances the rate reconciliation by requiring an entity to disclose specific categories in the rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. The update also requires an entity to disclose on an annual basis enhanced information about income taxes paid, income from continuing operations before income tax expense (or benefit) disaggregated between domestic and foreign, and income tax expense (or benefit) from continuing operations disaggregated by federal (national), state, and foreign. The amendments in this update are effective for fiscal years beginning after December 15, 2024. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. We are currently assessing the effect this ASU will have on our disclosures.

In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures." The amendments in this update improve reportable segment disclosure requirements through enhanced disclosures about significant segments expenses. Among other things, this update requires an entity to disclose significant segment expenses that are regularly provided to the chief operating decision maker ("CODM") and included within each reported measure of segment profit or loss. The update also requires entities to disclose other segment items, provide all annual disclosures about a reportable segment's profit and loss and assets currently required by this Topic in interim periods, disclose the title and position of our CODM, and an explanation of how the CODM uses the reported measures of segment profit or loss in assessing segment performance and deciding how to allocate resources. The amendments in this update are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. We are currently assessing the effect this ASU will have on our financial position, results of operations, and disclosures.

In June 2022, the FASB issued ASU 2022-03, "Fair Value Measurement (Topic 820): Fair Value

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Measurement of Equity Securities Subject to Contractual Sale Restrictions." The amendments in this update clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the security and, therefore, is not considered in measuring fair value. The amendments also clarify that an entity cannot recognize and measure a contractual sale restriction and adds additional disclosures for equity securities subject to contractual sale restrictions. The amendments in this update are effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. We do not expect this ASU to have a material impact on our financial position, results of operations, and disclosures.

Recently Adopted Accounting Standards: In March 2022, the FASB issued ASU 2022-02, "Financial **Instruments** **Instruments**—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures." **The For public business entities,** the amendments in this update require that an entity disclose current-period gross **writeoffs** **write-offs** by

year of origination for financing receivables and net investments in leases within the scope of Accounting Standards Codification ("ASC") 326, Subtopic 326-20. The amendments in this update **are were effective for Chart** for fiscal years beginning after December 15, 2022, **including interim periods within those fiscal years.** We **do adopted this guidance effective January 1, 2023.** The adoption of this guidance did not expect this ASU to have a material impact on our financial position, results of operations and or disclosures.

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 entity (acquirer) recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606. For public business entities, the amendments in this **Update update** are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. We **are currently assessing the effect adopted this ASU will** guidance effective April 1, 2022. The adoption of this guidance did not have a material impact on our financial position, results of operations and or disclosures.

In March 2020, the FASB issued ASU 2020-04, "Reference Rate Reform (Topic 848), Facilitation of the Effects of Reference Rate Reform on Financial **Reporting. Reporting.**" **This and in January 2021, the FASB subsequently issued ASU 2021-01, "Reference Rate Reform (Topic 848): Scope."** ASU 2020-04 and the subsequent modifications are identified as ASC 848 ("ASC 848"). ASC 848 simplifies the accounting for modifying contracts (including those in hedging relationships) that refer to LIBOR and other interbank offered rates that are expected to be discontinued due to reference rate reform. The amendments in **this ASU ASC 848** are effective for all entities as of March 12, 2020 through December 31, 2022. An entity may elect to apply the amendments for contract modifications by Topic or Industry Subtopic as of any date from the beginning of an interim period

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

that includes or is subsequent to March 12, 2020, or prospectively from a date within an interim period that includes or is subsequent to March 12, 2020, up to the date that the financial statements are available to be issued. Once elected for a Topic or an Industry Subtopic, the amendments in **this ASU ASC 848** must be applied prospectively for all eligible contract modifications for that Topic or Industry Subtopic. **We expect application of the amendments to impact accounting for our senior secured revolving credit facility due October 2026. Our lenders will notify us when our borrowings transition Chart transitioned away from LIBOR rates on our debt facilities in early 2023 at which point time we will adopt this ASU as part of the transition to the new reference rate.** In December 2022, the FASB issued ASU 2022-06, "Reference Rate Reform (Topic 848), Deferral of the Sunset Date of Topic 848." This ASU defers the sunset date of Topic 848 from December 31, 2022, to December 31, 2024. We are currently assessing the effect this ASU will have on our financial position, results of operations, and disclosures.

Recently Adopted Accounting Standards: In November 2021, the FASB issued ASU 2021-10, "Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance." The amendments in this update require annual disclosures about transactions with a government that are accounted for by applying a grant or contribution model by analogy. The amendments in this update are effective for all entities within their scope for financial statements issued for annual periods beginning after December 15, 2021. Early application of the amendments is permitted. We adopted this **guidance effective January 1, 2022.** The adoption of this guidance did not have a material impact on our financial position, results of operations or disclosures.

In August 2020, the FASB issued ASU 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entities Own Equity (Subtopic 815-40)." This ASU simplifies accounting for convertible instruments by eliminating two of the three models in ASC 470-20 that require separating embedded conversion features from convertible instruments. The guidance is effective for fiscal years beginning after December 15, 2021. We adopted this guidance effective January 1, 2021 under the modified retrospective adoption approach. The cumulative effect of the change was recognized as an adjustment to the opening balance of retained earnings at the date of adoption. The comparative information has not been restated and continues to be presented according to accounting standards in effect for those periods.

Upon adoption of ASU 2020-06, we recorded an adjustment to the convertible notes liability component, equity component (additional paid-in-capital) and retained earnings. This adjustment was calculated based on the carrying amount of

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

the convertible notes as if it had always been treated as a liability only. Furthermore, we recorded an adjustment to the debt issuance costs contra liability and equity (additional paid-in-capital) components as if debt issuance costs had always been treated as a contra liability only. Lastly, we derecognized deferred income taxes associated with the convertible notes debt discount and adjusted deferred incomes taxes relative to unamortized debt issuance costs associated with our convertible notes due November 2024.

Interest expense related to the accretion of our convertible notes due November 2024 is no longer recognized. Interest accretion of convertible notes discount and net income from continuing operations attributable to Chart Industries, Inc. for the year ended December 31, 2022 would have been \$8.8 and \$74.9 without the adoption of ASU 2020-06. As such, net income from continuing operations attributable to Chart Industries, Inc. per common share for the year ended December 31, 2022 is \$0.14 (basic) and \$0.13 (diluted) higher due to the effect of adoption of ASU 2020-06. Interest accretion of convertible notes discount and net income from continuing operations attributable to Chart Industries, Inc. for the year ended December 31, 2021 would have been \$8.4 and \$52.6 without the adoption of ASU 2020-06. As such, net income from continuing operations attributable to Chart Industries, Inc. per common share for the year ended December 31, 2021 is \$0.18 (basic) and \$0.16 (diluted) higher due to the effect of adoption of ASU 2020-06.

As further described in Note 10, "Debt and Credit Arrangements," on December 31, 2020, we amended the Indenture governing our convertible notes due November 2024 to eliminate share settlement thus leaving us with two settlement options: (1) cash settlement or (2) cash for par and any combination of cash and shares for the excess settlement amount above the \$258.8 principal amount of our convertible notes due November 2024. ASU 2020-06 requires usage of the if-converted method to compute diluted earnings per share for our convertible notes due November 2024, however, based on the terms of the amended Indenture and the cessation of interest accretion expense recognition from the

transition at adoption, the if-converted method was modified such that interest expense is no longer added to the numerator, and the denominator only includes incremental shares that would be issued upon conversion.

Impacts on Financial Statements

The following table summarizes the cumulative effect of the changes to our consolidated balance sheet as of December 31, 2020 from the adoption of ASU 2020-06:

	Balance at December 31, 2020	Adjustments due to ASU 2020-06 adoption	Balance at January 1, 2021
Liabilities			
Accrued income taxes	\$ 46.5	\$ (0.2)	\$ 46.3
Current convertible notes ⁽¹⁾	220.9	34.0	254.9
Long-term deferred tax liabilities	60.2	(7.6)	52.6
Equity			
Additional paid-in-capital	780.8	(36.9)	743.9
Retained earnings	\$ 808.4	\$ 10.7	\$ 819.1

⁽¹⁾ Current convertible notes is presented net of unamortized discount and debt issuance costs of \$34.8 and \$3.1, respectively at December 31, 2020. Current convertible notes is presented net of unamortized debt issuance costs of \$3.9 at January 1, 2021.

In January 2020, the FASB issued ASU 2020-01, "Investments – Equity Securities (Topic 321), Investments – Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)." This ASU clarifies the interactions between the measurement alternative in Topic 321, the equity method of accounting in Topic 323 and the application of guidance for certain forward contracts and purchased options that upon settlement or exercise would be accounted for under the equity method of accounting in Topic 815. This guidance is effective for fiscal years ending after December 15, 2020. We adopted this guidance effective January 1, 2021. During the third quarter 2021, we completed an additional investment in HTEC Hydrogen Technology & Energy Corporation and recognized a gain upon remeasurement of our initial fourth quarter 2020 investment in HTEC Hydrogen Technology & Energy Corporation due to an observable price change in an orderly transaction for similar instruments of the same issuer in accordance with the guidance provided in ASU 2020-01. Refer to Note 6, "Investments" for further discussion of our investment in HTEC Hydrogen Technology & Energy Corporation.

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

NOTE 3 — Discontinued Operations and Other Businesses Sold

Cryobiological Products Roots™ Divestiture

On **October 1, 2020** June 11, 2023, we closed on the sale of signed a definitive agreement to divest our cryobiological products Roots™ ("Roots") business, which was formerly we acquired as part of the Howden Acquisition and is within our D&S West segment prior the Specialty Products, Cryo Tank Solutions and Repair, Service & Leasing segments, to Ingersoll Rand Inc. (NYSE: IR) ("buyer"). Pursuant to the realignment of our segment reporting structuring in Purchase Agreement and subject to the fourth quarter of 2020, terms and conditions set forth therein, the business was sold to Cryoport, Inc. (NASDAQ: CYRX) the buyer for net cash proceeds of \$317.5, inclusive of the a base purchase price of \$320.0 less \$300.0, subject to customary adjustments. The sale was completed on August 18, 2023 with proceeds totaling \$291.9 after customary estimated closing adjustments working capital adjustments. The purchase price is subject to an additional net working capital adjustment, which is expected to settle in the first half of 2024. The strategic decision to divest 2024.

We previously determined that our Roots business qualified for discontinued operations and as such, the financial results of the Roots business are reflected in our cryobiological products business reflected consolidated statements of income and comprehensive income as discontinued operations for our strategy and capital allocation approach to focus on our core capabilities and offerings. entire ownership period of March 17, 2023 through August 18, 2023.

We recorded recognized a pre-tax gain on the Cryobiological Divestiture sale of \$224.2, net of taxes of \$25.2, \$5.0 for the year ended **December 31, 2020** December 31, 2023. Interest expense of \$7.4 was allocated to discontinued operations for the year ended December 31, 2020, based on interest on our term loan due June 2024 that was required to be repaid as a result of the Cryobiological Divestiture.

Summarized Financial Information of Discontinued Operations

The following table represents income from discontinued operations, net of tax:

	Year Ended December 31,	
	2022	2020
Sales	\$ —	\$ 59.9
Cost of sales	—	31.8
Selling, general and administrative expenses	74.8	7.8
Operating (loss) income ^{(1) (2)}	(74.8)	20.3
Interest expense, net	—	7.4

Other expense (income), net	—	(0.8)
(Loss) income before income taxes	(74.8)	13.7
Income tax benefit	(17.2)	(1.3)
(Loss) income from discontinued operations before gain on sale of business	(57.6)	15.0
Gain on sale of business, net of taxes ⁽³⁾	—	224.2
(Loss) income from discontinued operations, net of tax ⁽⁴⁾	\$ (57.6)	\$ 239.2

	Year Ended December 31,	
	2023 ⁽¹⁾	2022 ⁽³⁾
Sales	\$ 58.8	\$ —
Cost of sales	41.4	—
Gross profit	17.4	—
Selling, general, and administrative expenses	7.4	74.8
Operating income	10.0	(74.8)
Other expenses:		
Interest expense, net	8.9	—
Foreign currency loss	0.1	—
Other expense, net	9.0	—
Income (loss) before income taxes	1.0	(74.8)
Income tax expense (benefit)	1.2	(17.2)
Loss from discontinued operations before gain on sale of business	(0.2)	(57.6)
Loss on sale of business, net of \$5.4 taxes ⁽²⁾	0.4	—
Total loss from discontinued operations, net of tax	\$ (0.6)	\$ (57.6)

⁽¹⁾ Includes depreciation expense The Roots business was acquired on March 17, 2023 and held for sale until the sale was completed on August 18, 2023.

⁽²⁾ The gain on sale of \$0.7 the Roots business was \$5.0 before taxes for the year ended December 31, 2020 December 31, 2023.

⁽³⁾ Loss from discontinued operations, net of tax for the year ended December 31, 2022 relates to the divestiture of our cryobiological products business and the associated legal claims that Chart retained after the divestiture. We recognized a contingent liability and related legal fees and other third party expenses net of an insurance receivable and income taxes during the year ended December 31, 2022. See Note 21, "Commitments and Contingencies," Contingencies" for further information related to other expense (income), net for the year ended December 31, 2022. information.

⁽³⁾ Gain on sale of business is net of taxes of \$25.2 for the year ended December 31, 2020.

⁽⁴⁾ There was no income or cash flows from discontinued operations for the year ended December 31, 2021.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Other Businesses Sold

On October 26, 2023, we signed and closed on the divestiture of our American Fan business for \$111.0 all-cash to Arcline Investment Management, L.P with net proceeds totaling \$109.8 after customary estimated closing working capital adjustments. The following table presents purchase price is subject to an additional net working capital adjustment. We recognized a summary pre-tax gain on sale of cash flows related \$7.6, which is recorded within other income in the consolidated statement of income for the year ended December 31, 2023. American Fans operated within all four of our segments.

On October 26, 2023, we signed definitive documentation with respect to discontinued the sale of our Cryo Diffusion business for euro 4.25 million (equivalent to \$4.5). The sale completed on October 31, 2023 and we recognized a pre-tax loss on sale of euro 5.7 million (equivalent to \$6.1), which is recorded within other income in the consolidated statement of income for the year ended December 31, 2023. Cryo Diffusion operated within our Cryo Tank Solutions, Heat Transfer Systems and Repair, Service & Leasing segments.

On July 26, 2023, we signed a definitive agreement to sell our Cofimco fans business ("Cofimco") to PX3 Partners, the London headquartered private equity firm, for a base purchase price of \$73.6 computed as the previously announced \$80.0 purchase price less purchaser's due diligence expenses and an amount equal to \$5.6 which represents an estimate of net financial debt of Cofimco (as defined in the sale and purchase agreement). The purchase price is subject to an additional net working capital adjustment. The sale completed on October 31, 2023, and we recognized a pre-tax gain on sale of \$3.1, which is recorded within other income in the consolidated statement of income for the year ended December 31, 2023. Cofimco operated within our Heat Transfer Systems and Repair, Service & Leasing segments.

Financial results of the American Fan business, Cofimco and Cryo Diffusion business are reported in continuing operations for the following period:

	Year Ended December 31,
	2020
Net cash provided by:	
Operating activities	\$ 18.3
Investing activities	316.7
Net cash provided by discontinued operations	\$ 335.0

periods of Chart ownership.

NOTE 4 — Segment and Geographic Information

Our reportable segments, which are also our operating segments, are as follows: Cryo Tank Solutions, Heat Transfer Systems, Specialty Products and Repair, Service & Leasing. Our Cryo Tank Solutions segment, which has principal operations in the United States, Europe and Asia serves most geographic regions around the globe, supplying bulk, microbulk and mobile equipment used in the storage, distribution, vaporization, and application of industrial gases and certain hydrocarbons. Our

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

Heat Transfer Systems segment, with principal operations in the United States and Europe, also serves most geographic regions globally, supplying mission critical engineered equipment and systems used in the separation, liquefaction, and purification of hydrocarbon and industrial gases that span gas-to-liquid applications. Operating globally, our Specialty Products segment supplies products used in specialty end-market applications including hydrogen, LNG, biofuels, CO₂ Capture, carbon capture, food and beverage, aerospace, lasers cannabis and water treatment, among others. Our Heat Transfer Systems, Specialty Products and Cryo Tank Solutions segments also include products from the Howden Acquisition such as compressors, blowers and fans, rotary heaters and steam turbines. Our Repair, Service & Leasing segment provides installation, service, repair, maintenance, refurbishment, and refurbishment digital monitoring of cryogenic Chart's products globally in addition to providing equipment leasing solutions.

Corporate includes operating expenses for executive management, accounting, tax, treasury, corporate development, human resources, information technology, investor relations, legal, internal audit, and risk management. Corporate support functions are not currently allocated to the segments.

We evaluate performance and allocate resources based on operating income as determined in our consolidated statements of income.

Segment Financial Information

	Year Ended December 31, 2022						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Corporate	Consolidated
Sales	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ —	\$ 1,612.4
Depreciation and amortization expense	16.7	29.3	16.4	17.1	—	2.4	81.9
Operating income (loss) ⁽¹⁾	54.0	51.7	72.9	51.0	—	(78.1)	151.5

	Year Ended December 31, 2021						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Corporate	Consolidated
Sales	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ —	\$ 1,317.7
Depreciation and amortization expense	14.9	37.6	15.1	11.3	—	1.7	80.6
Operating income (loss) ⁽¹⁾	52.9	(12.3)	94.1	23.3	—	(69.5)	88.5

	Year Ended December 31, 2020						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Corporate	Consolidated
Sales	\$ 415.8	\$ 369.8	\$ 242.6	\$ 158.3	\$ (9.4)	\$ —	\$ 1,177.1
Depreciation and amortization expense	18.5	48.3	4.8	10.9	—	2.0	84.5
Operating income (loss) ⁽¹⁾⁽²⁾	52.5	11.2	60.7	30.3	—	(62.5)	92.2

⁽¹⁾ Restructuring (credits) costs for the years ended:

- income December 31, 2022 were \$(1.0) (\$0.1 – Cryo Tank Solutions \$0.3 – Heat Transfer Systems and \$(1.4) – Repair, Service & Leasing);
- December 31, 2021 were \$3.5 (\$0.3 – Cryo Tank Solutions, \$1.7 – Heat Transfer Systems, \$1.5 – Repair, Service & Leasing); and

- December 31, 2020 were \$13.6 (\$2.7 – Cryo Tank Solutions, \$7.4 – Heat Transfer Systems, \$0.7 – Specialty Products, \$0.2 – Repair, Service & Leasing and \$2.6 – Corporate).
- (2) Includes \$16.0 impairment of our trademarks and trade names indefinite-lived intangible assets related to the AXC business in our Heat Transfer Systems segment for the year ended December 31, 2020.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Segment Financial Information

	Year Ended December 31, 2023						
	Cryo Tank	Heat Transfer	Specialty Products	Repair, Service &	Intersegment	Corporate	Consolidated
	Solutions	Systems		Leasing	Eliminations		
Sales	\$ 640.8	\$ 891.2	\$ 819.9	\$ 1,029.2	\$ (28.6)	\$ —	\$ 3,352.5
Depreciation and amortization expense	23.2	32.6	24.7	145.1	—	5.5	231.1
Operating income (loss) ^{(1) (2)}	54.5	175.8	119.7	203.3	—	(162.6)	390.7

	Year Ended December 31, 2022						
	Cryo Tank	Heat Transfer	Specialty Products	Repair, Service &	Intersegment	Corporate	Consolidated
	Solutions	Systems		Leasing	Eliminations		
Sales	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ —	\$ 1,612.4
Depreciation and amortization expense	16.7	29.3	16.4	17.1	—	2.4	81.9
Operating income (loss) ^{(1) (2)}	54.0	51.7	72.9	51.0	—	(78.1)	151.5

	Year Ended December 31, 2021						
	Cryo Tank	Heat Transfer	Specialty Products	Repair, Service &	Intersegment	Corporate	Consolidated
	Solutions	Systems		Leasing	Eliminations		
Sales	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ —	\$ 1,317.7
Depreciation and amortization expense	14.9	37.6	15.1	11.3	—	1.7	80.6
Operating income (loss) ^{(1) (2)}	52.9	(12.3)	94.1	23.3	—	(69.5)	88.5

⁽¹⁾ Restructuring costs (credits) for the years ended:

- December 31, 2023 were \$13.5 (\$5.2 - Corporate, \$4.0 – Repair, Service & Leasing, \$1.8 – Specialty Products, \$1.6 – Cryo Tank Solutions and \$0.9 – Heat Transfer Systems);
 - December 31, 2022 were \$(1.0) (\$(1.4) – Repair, Service & Leasing, \$0.3 – Heat Transfer Systems and \$0.1 – Cryo Tank Solutions); and
 - December 31, 2021 were \$3.5 (\$1.7 – Heat Transfer Systems, \$1.5 – Repair, Service & Leasing and \$0.3 – Cryo Tank Solutions).
- ⁽²⁾ Acquisition-related contingent consideration credits in our Specialty Products segment related to our 2020 acquisitions of Sustainable Energy Solutions, Inc. (“SES”) and BlueInGreen, LLC (“BIG”) and for Maintenance Partners NV in our Repair, Service and Leasing segment, assumed as part of the Howden Acquisition, for the years ended:
- December 31, 2023 were \$(8.7) (\$(8.5) – Specialty Products and \$(0.2) – Repair, Service & Leasing); and
 - December 31, 2022 were \$(3.9) – Specialty Products.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Sales by Geography

Net sales by geographic area are reported by the destination of sales.

	Year Ended December 31, 2023					
	Cryo Tank	Heat Transfer	Specialty Products	Repair, Service &	Intersegment	Consolidated
	Solutions	Systems		Leasing	Eliminations	
North America ⁽¹⁾	\$ 309.5	\$ 594.0	\$ 307.6	\$ 317.6	\$ (13.1)	\$ 1,515.6

Europe, Middle East, Africa and India	210.0	115.3	230.3	468.4	(9.9)	1,014.1
Asia-Pacific ⁽²⁾	114.4	163.8	266.3	203.3	(5.1)	742.7
Rest of the World	6.9	18.1	15.7	39.9	(0.5)	80.1
Total	\$ 640.8	\$ 891.2	\$ 819.9	\$ 1,029.2	\$ (28.6)	\$ 3,352.5

Year Ended December 31, 2022						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
North America ⁽¹⁾	\$ 214.8	\$ 323.5	\$ 302.2	\$ 147.0	\$ (6.6)	\$ 980.9
Europe, Middle East, Africa and India	185.7	97.5	113.2	41.9	(3.9)	434.4
Asia-Pacific ⁽²⁾	98.1	40.1	32.2	19.3	(1.8)	187.9
Rest of the World	5.7	1.6	0.7	1.4	(0.2)	9.2
Total	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ 1,612.4

Year Ended December 31, 2021						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
North America ⁽¹⁾	\$ 178.3	\$ 181.1	\$ 193.2	\$ 118.6	\$ (5.4)	\$ 665.8
Europe, Middle East, Africa and India	155.2	28.6	204.1	36.4	(4.5)	419.8
Asia-Pacific ⁽²⁾	109.9	51.6	33.9	30.6	(2.3)	223.7
Rest of the World	4.0	1.4	1.7	1.4	(0.1)	8.4
Total	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ 1,317.7

Year Ended December 31, 2020						
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
North America ⁽¹⁾	\$ 168.0	\$ 259.4	\$ 98.9	\$ 111.2	\$ (4.4)	\$ 633.1
Europe, Middle East, Africa and India	165.3	39.3	121.8	38.1	(3.5)	361.0
Asia-Pacific ⁽²⁾	76.1	69.3	21.4	8.4	(1.4)	173.8
Rest of the World	6.4	1.8	0.5	0.6	(0.1)	9.2
Total	\$ 415.8	\$ 369.8	\$ 242.6	\$ 158.3	\$ (9.4)	\$ 1,177.1

- (1) Consolidated sales in the United States were \$1,387.7, \$938.5, \$585.9 and \$576.8 \$585.9 for the years ended December 31, 2022, December 31, 2023, 2021, 2022 and 2020, 2021, respectively and represent 58.2%, 41.4%, 44.5%, 58.2% and 49.0%, 44.5% of consolidated sales for the same periods, respectively.
- (2) Consolidated sales in China were \$460.9, \$58.3, \$136.2 and \$100.7 \$136.2 for the years ended December 31, 2022, December 31, 2023, 2021, 2022 and 2020, 2021, respectively and represent 3.6%, 13.7%, 10.3%, 3.6% and 8.6%, 10.3% of consolidated sales for the same periods, respectively.

No single customer accounted for more than 10% of consolidated sales for any of the periods presented in the tables above.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Total Assets

Corporate assets mainly include cash and cash equivalents and long-term deferred income taxes as well as certain corporate-specific property, plant and equipment, net and certain investments. Our allocation methodology for property, plant and equipment, net of the reportable segments differs from our allocation method of depreciation expense of a reportable segment and therefore, depreciation expense does not entirely align with the related depreciable assets of the reportable segments. Furthermore, since finite-lived intangible assets are excluded from total assets of reportable segments while amortization expense is allocated to each of our reportable segments, amortization expense by segment inherently does not align with the related amortizable intangible assets of the reportable segments.

December 31,			
2022	2021		
December 31,		December 31,	
2023		2023	2022

Cryo Tank Solutions	Cryo Tank Solutions	\$ 382.0	\$ 407.2
Heat Transfer Systems	Heat Transfer Systems	298.6	225.8
Specialty Products	Specialty Products	429.8	327.5
Repair, Service & Leasing	Repair, Service & Leasing	182.1	186.2
Total assets of reportable segments	Total assets of reportable segments	1,292.5	1,146.7
Goodwill (1)	Goodwill (1)	992.0	994.6
Identifiable intangible assets, net (1)	Identifiable intangible assets, net (1)	535.3	556.1
Corporate	Corporate	2,830.7	346.4
Insurance receivable, net of tax	Insurance receivable, net of tax	251.4	—
Total assets	Total assets	\$5,901.9	\$3,043.8

(1) See Note 9, "Goodwill and Intangible Assets," for further information related to goodwill and identifiable intangible assets, net.

Geographic Information

		Property, plant and equipment, net as of December 31,		Property, plant and equipment, net as of December 31,	
		2022	2021		
2023				2023	2022
United States	United States	\$262.0	\$234.0		
Foreign	Foreign				
	Germany				
	Germany				
	Germany				
	China				
Italy	Italy	56.4	60.7		
China		49.3	58.8		
Czech Republic	Czech Republic	26.6	29.9		
Germany		16.3	16.5		
India	India	19.3	16.1		
Other foreign countries	Other foreign countries	0.1	—		
Total Foreign	Total Foreign	168.0	182.0		
Total	Total	\$430.0	\$416.0		

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and shares in millions, except per share amounts)

NOTE 5 — Revenue

Disaggregation of Revenue

The following tables represent a disaggregation of revenue by timing of revenue along with the reportable segment for each category:

		Year Ended December 31, 2022					
		Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
Point in time	Over time	\$ 443.4	\$ 27.3	\$ 214.8	\$ 104.4	\$ (8.8)	\$ 781.1
Point in time	Over time	60.9	435.4	233.5	105.2	(3.7)	831.3
Total	Total	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ 1,612.4

		Year Ended December 31, 2022					
		Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service and Leasing	Intersegment Eliminations	Consolidated
Point in time	Over time	\$ 443.4	\$ 27.3	\$ 214.8	\$ 104.4	\$ (8.8)	\$ 781.1
Point in time	Over time	60.9	435.4	233.5	105.2	(3.7)	831.3
Total	Total	\$ 504.3	\$ 462.7	\$ 448.3	\$ 209.6	\$ (12.5)	\$ 1,612.4

		Year Ended December 31, 2021					
		Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
Point in time	Over time	\$ 407.6	\$ 19.2	\$ 300.5	\$ 119.1	\$ (10.7)	\$ 835.7
Point in time	Over time	39.8	243.5	132.4	67.9	(1.6)	482.0
Total	Total	\$ 447.4	\$ 262.7	\$ 432.9	\$ 187.0	\$ (12.3)	\$ 1,317.7

		Year Ended December 31, 2020					
		Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Intersegment Eliminations	Consolidated
Point in time	Over time	\$ 378.3	\$ 28.6	\$ 184.6	\$ 110.3	\$ (4.5)	\$ 697.3
Point in time	Over time	37.5	341.2	58.0	48.0	(4.9)	479.8
Total	Total	\$ 415.8	\$ 369.8	\$ 242.6	\$ 158.3	\$ (9.4)	\$ 1,177.1

Refer to Note 4, "Segment and Geographic Information," for a table of revenue by reportable segment disaggregated by geography.

Contract Balances

The following table represents changes in our contract assets and contract liabilities balances:

	December 31, 2022	December 31, 2021	Year-to-date Change (\$)	Year-to-date Change (%)
	December 31,	December 31,		
	December 31,	December 31,		
	2023	2023		
	2023	2023		
	2023	2023		
Contract assets				

Contract assets						
Contract assets	Contract assets					
Accounts receivable, net of allowances	Accounts receivable, net of allowances	\$	278.4	\$	236.3	\$ 42.1 17.8 %
Accounts receivable, net of allowances						
Accounts receivable, net of allowances						
Unbilled contract revenue						
Unbilled contract revenue						
Unbilled contract revenue	Unbilled contract revenue		133.7		93.5	40.2 43.0 %
Contract liabilities	Contract liabilities					
Contract liabilities						
Contract liabilities						
Customer advances and billings in excess of contract revenue	Customer advances and billings in excess of contract revenue	\$	170.6	\$	148.5	\$ 22.1 14.9 %
Long-term deferred revenue			0.3		0.4	(0.1) (25.0) %
Customer advances and billings in excess of contract revenue						
Customer advances and billings in excess of contract revenue						

Revenue recognized for the years ended **December 31, 2022**, **December 31, 2023** and **2021, 2022**, that was included in the contract liabilities balance at the beginning of each year was **\$127.8**, **\$116.0** and **\$104.3**, **\$127.8**, respectively. The amount of revenue recognized during the year ended **December 31, 2022**, **December 31, 2023** from performance obligations satisfied or partially satisfied in previous periods as a result of changes in the estimates of variable consideration related to long-term contracts, was not significant. **Long-term deferred revenue is included** The increases in other long-term contract assets and contract liabilities as of **December 31, 2023** compared to **December 31, 2022** were driven by additional volume resulting from the Howden Acquisition in the consolidated balance sheets for the years ended **December 31, 2022** and **2021, 2023**.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Remaining Performance Obligations

Remaining performance obligations represent the transaction price of firm signed purchase orders or other written contractual commitments from customers for which work has not been performed, or is partially completed, and excludes unexercised contract options and potential orders. As of **December 31, 2022**, **December 31, 2023**, the estimated revenue expected to be recognized in the future related to remaining performance obligations was **\$2,338.1**, **\$4,278.8**, which is equivalent to our backlog. We expect to recognize revenue on approximately **60%**, **63%** of the remaining performance obligations over the next 12 months with the remaining balance recognized over the next few years thereafter.

NOTE 6 — Investments

Equity Method Investments

The following table represents the activity in equity method investments:

	Equity Method Investments
Balance at December 31, 2020	\$ 5.3
New investments ^{(1) (2)}	58.7
Reclassification from investments in equity securities to equity method investments ⁽²⁾	36.8
Equity in earnings of unconsolidated affiliates, net ^{(1) (2) (3)}	0.4
Foreign currency translation adjustments and other	(1.6)
Balance at December 31, 2021	\$ 99.6
New investments ⁽⁴⁾	0.5
Realized gain on equity method investment ⁽⁴⁾	0.3
Reclassification due to acquisition of investee ⁽⁴⁾	(0.5)
Equity in earnings of unconsolidated affiliates, net loss ^{(1) (2) (3)}	(0.5)
Foreign currency translation adjustments and other loss	(6.4)
Balance at December 31, 2022	\$ 93.0
New investments ⁽⁴⁾	15.3
Equity in earnings ^{(1) (2) (3)}	2.7
Foreign currency translation gain	1.0
Dividend received from equity method investment	(2.1)
Balance at December 31, 2023	\$ 109.9

(1) *Cryomotive*: During the second quarter 2021, we completed an Our equity method investment in Cryomotive GmbH ("Cryomotive") in the amount of 6.8 million euros (equivalent to \$8.2) for a 24.9% ownership interest. Our equity method investment in Cryomotive was \$4.7 and \$4.9 at December 31, 2023 and \$7.1 at December 31, 2022 and 2021, 2022, respectively. Equity in loss of unconsolidated affiliates, net of this investment was \$0.5, \$1.7, and \$0.6 for the years ended December 31, 2022 December 31, 2023, 2022, and 2021, respectively, and respectively. The equity in loss is classified in equity in earnings (loss) earnings of unconsolidated affiliates, net in the statement consolidated statements of income for both periods presented. and comprehensive income.

(2) *HTEC*: During the fourth quarter 2020, we completed an Our equity method investment in HTEC Hydrogen Technology & Energy Corporation ("HTEC") was \$82.3 and \$80.8 at December 31, 2023 and 2022, respectively. Equity in the amount (loss) earnings of CAD 20.0 million (equivalent to \$15.7) in exchange for 15.6% unconsolidated affiliates, net of HTEC's common stock on a fully-diluted basis (the "Initial HTEC Investment"). On September 7, 2021 (the "Closing Date") this investment of \$(0.2), we completed an additional investment in HTEC in the amount of CAD 63.5 million (equivalent to \$50.5) \$(0.4), which increased our investment ownership to 25% of HTEC's common stock on a fully-diluted basis. We recognized a gain of \$20.7 upon remeasurement of the Initial HTEC Investment due to an observable price change in an orderly transaction for similar instruments of the same issuer, which was recognized in unrealized (gain) loss on investments in equity securities in the consolidated statement of income and \$0.2 for the year years ended December 31, 2021. We reclassified the Initial HTEC Investment inclusive of the \$20.7 gain and foreign currency translation gains from investments in equity securities to equity method investments during 2021. Our equity method investment in HTEC was \$80.8 and \$86.4 at December 31, 2022 December 31, 2023, 2022, and 2021, respectively. We recognized equity Equity in (loss) earnings of this investment of \$(0.4) and \$0.2 for the years ended December 31, 2022 and 2021, respectively, which is classified in equity in earnings (loss) earnings of unconsolidated affiliates, net in the statements of income for the years ended December 31, 2022 December 31, 2023, 2022, and 2021.

(3) *Hudson Products*: Our Also included in our equity method investments include is a 50% ownership interest in a joint venture with Hudson Products de Mexico S.A. de CV which totaled \$4.7 and \$4.0 at December 31, 2023 and \$3.3 at December 31, 2022 and 2021, 2022, respectively. This investment is operated and managed by our joint venture partner and as such, we do not have control over the joint venture and therefore it is not consolidated. We recognized equity in earnings of this investment of \$0.9, \$1.1 \$0.5 and \$0.3 \$0.5 for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively. Equity in earnings of this investment is classified in equity in earnings (loss) of unconsolidated affiliates, net in the statements of income for the years ended December 31, 2023, 2022, and 2021. We received dividends in the amount of \$0.2 for the year ended December 31, 2023.

Liberty LNG: Additionally, we have a 25% ownership interest in Liberty LNG, which totaled \$2.7 and \$2.9 at December 31, 2023 and 2022, respectively. For the years ended December 31, 2023, 2022 and 2021, equity in earnings of this investment was \$0.1, \$0.5 and \$0.3, respectively. Equity in earnings of this investment is classified in equity in earnings (loss) of unconsolidated affiliates, net in the statements of income for the years ended December 31, 2023 and 2022. We received dividends in the amount of \$0.4 for the year ended December 31, 2023.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Additionally, we have an investment in (loss) an unconsolidated affiliate, Lien Hwa Lox Cryogenic Equipment Corporation (Taiwan), of \$0.4 for all periods presented.

(4) *Hyllium Industries*: During the first quarter of 2023, we completed an investment for a 50% ownership interest in Hyllium Industries, Inc. ("Hyllium") for \$2.3. Our equity method investment in Hyllium was \$2.2 at December 31, 2023.

L&T Howden Private Ltd ("LTH"): In connection with the Howden Acquisition, we recorded a 49.9% ownership interest in a joint venture in L&T Howden Private Ltd at a fair value of \$12.0. Our equity method investment in LTH was \$11.7 at December 31, 2023. Equity in earnings, of unconsolidated affiliates, net in the statement of income for the years ended December 31, 2022 and 2021 and selling, general and administrative expenses in the statement of income this investment was \$1.4 for the year ended December 31, 2020 December 31, 2023.

Liberty LNG: Additionally, we have a 25% ownership interest in Liberty LNG, which totaled \$2.9 and \$2.4 at December 31, 2022 and 2021, respectively. For the years ended December 31, 2022, 2021 and 2020, equity in (loss) earnings of this investment was \$0.5, \$0.3 and \$(1.0), respectively. Equity in (loss) earnings of this investment is classified in equity in earnings (loss) earnings of unconsolidated affiliates, net in the statements of income for the years ended December 31, 2022 and 2021, and unrealized (gain) loss on investment in equity securities in the statement of income for the year ended December 31, 2020 December 31, 2023.

- (4) **AdEdge India:** In connection with our acquisition of AdEdge Holdings, LLC ("AdEdge"), we recorded We also received a 50% ownership interest in a joint venture in AdEdge India at a fair value of \$0.5. On May 4, 2022, we completed the acquisition of the remaining 50% of the shares of our joint venture in AdEdge India for \$0.4 in cash (subject to certain customary adjustments) or \$0.3 net of \$0.1 cash acquired. On the acquisition date, we recognized a gain of \$0.3 dividend payment from the remeasurement of our initial 50% of the shares this investee in the joint venture, which is classified as realized gain on equity method investment in the consolidated statement amount of income for \$1.5 during the year ended December 31, 2022 December 31, 2023. See Note 14, "Business Combinations" for further information regarding the AdEdge India acquisition. We have another immaterial investment in an unconsolidated affiliate of \$0.4 for all periods presented.

Investments in equity securities

The following table represents the activity in investments in equity securities:

	Investment in Equity Securities, Level 1 (1)	Investment in Equity Securities, Level 2 (1)	Investments in Equity Securities, All Others (2)	Investments in Equity Securities Total
Balance at December 31, 2020	\$ 53.8	\$ 4.1	\$ 15.7	\$ 73.6
New investments (2) (3)	—	—	45.2	45.2
Reclassification due to acquisition of investee (3)	—	—	(7.6)	(7.6)
Reclassification to equity method investments from investments in equity securities (4)	—	—	(36.8)	(36.8)

	Investment in Equity Securities, Level 1 (1)	Investment in Equity Securities, Level 1 (1)	Investment in Equity Securities, Level 2 (1)	Investments in Equity Securities, All Others (2)	Investments in Equity Securities Total
Balance at December 31, 2021					
New investments					
(Decrease) increase in fair value of investments in equity securities	(Decrease) increase in fair value of investments in equity securities	(19.7)	2.2	20.7	3.2
Realized gain on investment in equity securities (3)	—	—	2.6	2.6	
Foreign currency translation adjustments and other	(2.8)	(0.1)	0.5	(2.4)	
Balance at December 31, 2021	\$ 31.3	\$ 6.2	\$ 40.3	\$ 77.8	
New investments (5)	—	—	9.4	9.4	
(Decrease) increase in fair value of investments in equity securities	(11.8)	1.6	23.3	13.1	

Foreign currency translation adjustments and other	Foreign currency translation adjustments and other	(2.3)	—	(1.5)	(3.8)
Balance at December 31, 2022	Balance at December 31, 2022	\$ 17.2	\$ 7.8	\$ 71.5	\$ 96.5
New investments					
(3)					
Decrease in fair value of investments in equity securities					
Foreign currency translation adjustments and other					
Balance at December 31, 2023					

(1) *McPhy*: Investment in equity securities Level 1 includes our investment in McPhy (Euronext Paris: MCPHY – ISIN: FR0011742329). McPhy's common stock trades on the Euronext Paris stock exchange and therefore we measure our investment in McPhy using Level 1 fair value inputs. The fair value of our investment in McPhy was \$4.8 and \$17.2 at December 31, 2023 and \$31.3 at December 31, 2022 and 2021, 2022, respectively. For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, we recognized an unrealized (loss) gain loss of \$(11.8), \$(19.7) \$12.7, \$11.8 and \$17.0, \$19.7, respectively, in our investment in McPhy.

Stabilis: Investment in equity securities Level 2 includes our investment in Stabilis Energy, Inc. (NasdaqCM: SLNG) ("Stabilis"). Stabilis represents an instrument with quoted prices that trades less frequently than certain of our other exchange-traded instruments and therefore we measure our investment in Stabilis using Level 2 fair value inputs. The fair value of Stabilis was \$6.1 and \$7.8 at December 31, 2023 and \$6.2 at December 31, 2022 and 2021, 2022, respectively. For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 we recognized unrealized gains loss of \$1.7 and an unrealized gain of \$1.6 and \$2.2, and an unrealized loss of \$2.9, respectively, in our investment in Stabilis.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

(2) *Transform*: During the first quarter 2021, we completed an investment in Transform Materials LLC ("Transform Materials") in the amount of \$25.1, inclusive of legal fees, for approximately 5% of its equity. The fair value of our investment in Transform Materials LLC ("Transform Materials") was \$25.1 at December 31, 2022 December 31, 2023 and 2021, 2022, respectively.

Svante: Also during the first quarter 2021, we completed an investment in Svante Inc. ("Svante") in the amount of \$15.1, inclusive of legal fees, for under 10% of its capital stock on a fully diluted basis. On December 15, 2022 we increased the fair value of our investment by \$23.3 as the result of an observable price change in an orderly transaction, which is recorded as an unrealized gain on investment in equity securities in the consolidated statement of income for the year ended December 31, 2022. The fair value of our investment in Svante Inc. ("Svante") was \$38.5 at both December 31, 2023 and \$15.1 at December 31, 2022 and 2021, respectively, 2022.

(3) During the second quarter 2021, we completed an investment in Earthly Labs in the amount of \$5.0 for approximately 15% of its equity. On December 14, 2021 we completed the acquisition of the remaining 85% of the shares of Earthly Labs. On the acquisition date, we recognized a gain of \$2.6 from the remeasurement of our initial 15% investment in Earthly Labs, which is classified as realized gain on investment in equity securities in the consolidated statement of income for the year ended December 31, 2021. See Note 14, "Business Combinations" for further information regarding the Earthly Labs acquisition.

(4) *Hy24*: We reclassified the Initial HTEC Investment inclusive of a \$20.7 gain and foreign currency translation gains from investments in equity securities to equity method investments. Refer to the "Equity Method Investments" section above for further discussion.

(5) *Hy24 (f/k/a FiveT Hydrogen Fund and Clean H2 Infra Fund)*: During the first quarter of 2022, we completed an investment in Hy24 in the amount of euro 2.2 million (equivalent to \$2.4). Our investment in Hy24 is measured at fair value using the net asset value ("NAV") per share practical expedient and is not classified in the fair value hierarchy. The fair value of our investment in Hy24 was euro 0.9 million (equivalent to \$0.9) \$4.1 and \$0.9 at December 31, 2022, December 31, 2023 and 2022, respectively. See "Hy24 (f/k/a FiveT Hydrogen Fund and Clean H2 Infra Fund)" below for further information.

Cemvita Factory Inc., Gold Hydrogen LLC: During the first quarter of 2022, we completed an investment in Gold Hydrogen LLC ("Gold Hydrogen") in the amount of \$1.0. During the third quarter of 2022, we invested an additional \$1.0 in Gold Hydrogen. This investment is measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer both December 31, 2023 and is included in the investments in equity securities, all others category in the table above. As of December 31, 2022, the value of the investment was \$2.0. Gold Hydrogen is a subsidiary company established by Cemvita Factory, Inc. focused on commercializing viable technologies for the subsurface production of biohydrogen. 2022.

Avina: During the fourth quarter of 2022, we completed an investment in Avina Clean Hydrogen Inc. ("Avina") in the amount of \$5.0. During the third quarter of 2023, Chart completed the purchase of additional shares of series A preferred

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

stock of Avina in accordance with the original Avina stock purchase agreement for total consideration of \$5.0. The fair value of investment in Avina was \$10.0 at both December 31, 2023 and 2022.

Our investments in Transform Materials, Svante, Hy24, Gold Hydrogen and Avina represent equity instruments without a readily determinable fair value. These investments are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer and is included in the investments in equity securities, all others category in the table above. As of December 31, 2022, the value of the investment was \$5.0. Avina is a pioneer in the green hydrogen and green fuels sector with an advanced portfolio of clean hydrogen plants under development and access to proprietary technology solutions. Avina has expertise in the green hydrogen sector and are developing proprietary solutions to integrate intermittent renewable power with commercially available hydrogen technologies. issuer.

Per the terms of the Avina stock purchase agreement, at any time prior to the one-year anniversary of Chart's investment, Chart shall be obligated to purchase an additional 294,627 shares of series A preferred stock (the "Avina Second Tranche Put") at a purchase price of \$16.97 per share if Avina reaches the following milestones:

- i. one material off-take agreement in connection with certain specified projects and
- ii. either a debt financing loan agreement or a real property lease agreement for certain specified projects

We record the Avina Second Tranche Put at fair value and record any change in fair value through earnings at each reporting period. The fair value of the Avina Second Tranche was not material on the investment date or at December 31, 2022.

Our investments in Transform Materials, Svante, Gold Hydrogen and Avina represent equity instruments without a readily determinable fair value.

Co-Investment Agreement

On September 7, 2021, we entered into a Co-investment agreement with I Squared Capital ("ISQ"), an infrastructure-focused private equity firm (the "Co-Investment Agreement"), pursuant to which Chart and ISQ have agreed to the following:

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

- In the following circumstances, ISQ shall have the right but not the obligation to require Chart to purchase all (and not less than all) of the shares of HTEC common stock acquired as part of ISQ's investment described above (the "Put Option"):
 - i. the third anniversary of the Closing Date,
 - ii. the date Chart undergoes a change of control (subject to certain exceptions),
 - iii. the date upon which Chart, during the period from the Closing Date through the third anniversary of the Closing Date, has made certain distributions to its shareholders (including cash or other dividends, or via a spin-off transaction), in excess of \$900.0,
 - iv. the date, if any, upon which our leverage ratio exceeds certain thresholds and
 - v. the date, if any, of a bankruptcy event (including certain insolvency-related actions) involving Chart.
- In the event that ISQ exercises its Put Option, we shall pay to ISQ an amount in cash in exchange for the HTEC common stock then held by ISQ such that ISQ shall realize the greater of (i) an internal rate of return of 10% and (ii) a multiple on ISQ's invested capital of 1.65x.
- Conversely, at any time after the third anniversary of the Closing Date, we shall have the right to purchase from ISQ up to 20% of the shares of HTEC common stock acquired as part of the ISQ Investment. In exchange for the common stock, we shall pay ISQ the greater of (i) an internal rate of return of 12.5% and (ii) a multiple on ISQ's invested capital of 1.65x.
- In addition, we shall have (i) a right of first offer: if ISQ desires to transfer any of its HTEC common stock to any third party, we shall have the right to first offer provided that upon notice, we shall have the option to make a first offer to purchase the offered interest in cash exclusively and (ii) a right of first refusal: if ISQ desires to sell its HTEC common stock to any third party pursuant to a definitive agreement therewith, we shall have the right of first refusal provided that the purchase consideration paid by Chart to ISQ upon our exercise of such right of first refusal must be equal to 102% of the purchase consideration agreed to be paid by such third party.
- The Co-Investment Agreement shall terminate automatically upon the consummation of an initial public offering by HTEC of its common stock.

Accounting Treatment of Put and Call Options

We record the Put and Call Options (together “the Options”) at fair value and record any change in fair value through earnings at each reporting period. The fair value of the Options was not material on the Closing Date or at **December 31, 2022** **December 31, 2023**.

Hy24 (f/k/a FiveT Hydrogen Fund and Clean H2 Infra Fund)

As previously announced on April 5, 2021, we were admitted as an anchor investor in Hy24 (the “Hydrogen Fund” “Hydrogen Fund”). Hy24 is a joint venture between Ardian, Europe’s largest private a European investment house, with managed assets of c. \$114 billion, and FiveT Hydrogen, a new investment manager specialized purely on clean hydrogen investments. As discussed in the “Investments in Equity Securities” section above, our investment Investments to date include a green steel manufacturing plant that integrates green H2 located in Sweden, upstream e-Methanol and sustainable aviation fuel production in Europe, and green hydrogen production projects (electrolysis) in Europe. Our investment year to date is euro 0.9 million 3.2 million (equivalent to \$3.4) making our unfunded commitment euro 49.1 million 44.1 million (equivalent to \$48.7). During the twelve months ended December 31, 2023 there was a return of capital of \$0.3 from Hy24.

The fund manager of the Hydrogen Fund (the “Management Company”) has established a Limited Partners Advisory Committee (the “LPAC”), which met for the first time in January 2022, to consult consults with and help helps advise the Management Company with respect to certain key decisions governing the fund that the Management Company shall make. The LPAC is expected be comprised by of up to fifteen (15) members, the

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

majority of whom shall be are chosen by certain industrial investors and who shall be are (i) representatives of the anchor investors and (ii) subject to any remaining available seats, representatives of the non-anchor investors selected by the Management Company.

Class A1 Shares, which we hold, are entitled to the return of any associated paid-up capital contributions (excluding any subscription premium or default interest, if any), the Preferred Return calculated thereon as described below, and their share of the Hydrogen Fund’s capital gain beyond the Preferred Return in accordance with the order of distributions set forth in the by-laws of the Hydrogen Fund (in each case to the extent of available funds). The “Preferred Return” equals an annual interest rate of seven percent (7%) if fifteen percent (15%) of the Hydrogen Fund’s aggregate capital commitments from all investors is invested in strategic investments; provided, however, that such seven percent (7%) interest rate shall be reduced in a linear fashion to six and one-half percent (6.5%) if twenty percent (20%) of the Hydrogen Fund’s aggregate capital commitments

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

from all investors is invested in strategic investments. In October 2022, the The Management Company closed currently expects that the Hydrogen Fund at euro 2.0 billion of will attract aggregate capital commitments exceeding initial ambitions, equal to its hard cap of euro 1.8 billion.

The Hydrogen Fund shall determine the net asset value of each class of its shares at the end of each quarter (including the Class A1 Shares that we hold), which will be used to record the fair value of our investment.

The Hydrogen Fund will have a term of twelve (12) years, commencing from December 16, 2021, subject to certain potential extensions. Investors cannot request the redemption of their shares by the Hydrogen Fund at any time prior to the final liquidation of the fund. Capital calls will be made by the Management Company in accordance with investment opportunities and the financing needs of the Hydrogen Fund’s activities.

The Management Company is required to send capital call requests to investors at least ten (10) business days prior to their deadline for payment. In the event that, following any capital call made by the Management Company, an investor of the Hydrogen Fund does not timely fund all or any portion of its capital commitment required thereby, such investor will be charged interest thereon equal to the Preferred Return plus one-half percent (0.5%), and shall not be entitled to receive distributions from the Hydrogen Fund until it is no longer delinquent.

NOTE 7 — Inventories

The following table summarizes the components of inventory:

		December 31,		December 31,	
		2022	2021	2023	2022
Raw materials and supplies	Raw materials and supplies	\$218.9	\$178.8		
Work in process	Work in process	57.8	64.4		
Finished goods	Finished goods	81.2	78.3		

Total inventories, net	Total inventories, net	\$357.9	\$321.5
------------------------	------------------------	---------	---------

The allowance for excess and obsolete inventory balance at December 31, 2022, December 31, 2023 and 2021 2022 was \$8.2 \$9.9 and \$10.9, \$8.2, respectively.

NOTE 8 — Property, Plant and Equipment

The following table summarizes the components of property, plant and equipment:

Classification	Estimated Useful Life	December 31,	
		2022	2021
Land and buildings	20-35 years	\$ 353.5	\$ 355.6
Machinery and equipment	3-12 years	247.8	236.5
Computer equipment, furniture and fixtures	3-7 years	43.1	38.8
Right-of-use assets		46.9	48.3
Construction in process		66.5	28.7
Total property, plant and equipment, gross		757.8	707.9
Less: accumulated depreciation		(327.8)	(291.9)
Total property, plant and equipment, net		\$ 430.0	\$ 416.0

Depreciation expense was \$40.5, \$41.7 and \$38.8 for the years ended December 31, 2022, 2021 and 2020, respectively.

Classification	Estimated Useful Life	December 31,	
		2023	2022
Land and buildings	20-35 years	\$ 526.9	\$ 353.5
Machinery and equipment	3-12 years	361.6	247.8
Computer equipment, furniture and fixtures	3-7 years	75.1	43.1
Right-of-use assets		90.4	46.9
Construction in process		142.9	66.5
Total property, plant and equipment, gross		1,196.9	757.8
Less: accumulated depreciation		(359.3)	(327.8)
Total property, plant and equipment, net		\$ 837.6	\$ 430.0

CHART INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and shares in millions, except per share amounts)

Depreciation expense was \$67.7, \$40.5 and \$41.7 for the years ended December 31, 2023, 2022, and 2021, respectively. Capital expenditures of \$28.4 are included in accounts payable in our consolidated balance sheet at December 31, 2023.

NOTE 9 — Goodwill and Intangible Assets

Goodwill

The following table represents the activity in goodwill net of accumulated goodwill impairment loss ("goodwill, net") and accumulated goodwill impairment loss by segment for 2022, 2023:

	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Repair, Service & Leasing	Consolidated
Goodwill, net balance at December 31, 2021	\$ 84.9	\$ 433.6	\$ 300.9	\$ 175.2	\$ 994.6
Goodwill acquired during the period ^{(1) (2)}	—	—	15.4	3.1	18.5
Foreign currency translation adjustments and other	(5.8)	(3.1)	(0.3)	0.3	(8.9)
Purchase price adjustments ⁽³⁾	—	—	(12.0)	(0.2)	(12.2)
Goodwill, net balance at December 31, 2022	\$ 79.1	\$ 430.5	\$ 304.0	\$ 178.4	\$ 992.0
Accumulated goodwill impairment loss at December 31, 2021	\$ 23.5	\$ 49.3	\$ 35.8	\$ 20.4	\$ 129.0
Accumulated goodwill impairment loss at December 31, 2022	\$ 23.5	\$ 49.3	\$ 35.8	\$ 20.4	\$ 129.0

	Repair, Service &				
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Leasing	Consolidated
Goodwill, net balance at December 31, 2022	\$ 79.1	\$ 430.5	\$ 304.0	\$ 178.4	\$ 992.0
Foreign currency translation adjustments and other	3.3	0.8	—	0.1	4.2
Goodwill acquired during the year ⁽¹⁾	204.2	59.1	304.4	1,517.6	2,085.3
Divestitures ⁽²⁾	(67.3)	(10.0)	(40.6)	(57.2)	(175.1)
Purchase price adjustment ⁽³⁾	—	—	0.1	0.3	0.4
Goodwill, net balance at December 31, 2023	\$ 219.3	\$ 480.4	\$ 567.9	\$ 1,639.2	\$ 2,906.8
Accumulated goodwill impairment loss at December 31, 2022	\$ 23.5	\$ 49.3	\$ 35.8	\$ 20.4	\$ 129.0
Accumulated goodwill impairment loss at December 31, 2023	\$ 23.5	\$ 49.3	\$ 35.8	\$ 20.4	\$ 129.0

⁽¹⁾ Goodwill acquired during the period was \$2,085.3. All goodwill acquired during the period is related to the Howden Acquisition.

⁽²⁾ Refer to Note 3, "Discontinued Operations and Other Businesses Sold" for information regarding divestitures.

⁽³⁾ During the year ended December 31, 2023, we recorded purchase price adjustment which increased goodwill by \$0.1 in our Specialty Products segment related to the 2022 acquisition of Fronti Fabrications, Inc. ("Fronti") and increased goodwill by \$0.3 in our Repair, Service & Leasing segment related to the 2022 acquisition of CSC Cryogenic Service Center AB ("CSC"). For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14, "Business Combinations."

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The following table represents the activity in goodwill net of accumulated goodwill impairment loss ("goodwill, net") and accumulated goodwill impairment loss by segment for 2022 ⁽¹⁾:

	Repair, Service &					
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Leasing	Corporate	Consolidated
Goodwill, net balance at December 31, 2021	\$ 84.9	\$ 433.6	\$ 300.9	\$ 175.2	\$ —	\$ 994.6
Foreign currency translation adjustments and other	(5.8)	(3.1)	(0.3)	0.3	—	(8.9)
Goodwill acquired during the period ⁽¹⁾ ⁽²⁾	—	—	15.4	3.1	—	18.5
Purchase price adjustments ⁽³⁾	—	—	(12.0)	(0.2)	—	(12.2)
Goodwill, net balance at December 31, 2022	<u>\$ 79.1</u>	<u>\$ 430.5</u>	<u>\$ 304.0</u>	<u>\$ 178.4</u>	<u>\$ —</u>	<u>\$ 992.0</u>
Accumulated goodwill impairment loss at December 31, 2021	<u>\$ 23.5</u>	<u>\$ 49.3</u>	<u>\$ 35.8</u>	<u>\$ 20.4</u>	<u>\$ —</u>	<u>\$ 129.0</u>
Accumulated goodwill impairment loss at December 31, 2022	<u>\$ 23.5</u>	<u>\$ 49.3</u>	<u>\$ 35.8</u>	<u>\$ 20.4</u>	<u>\$ —</u>	<u>\$ 129.0</u>

⁽¹⁾ For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14, "Business Combinations."

⁽²⁾ Goodwill acquired during the period was \$18.5. Goodwill acquired during the period for the Fronti and AdEdge India acquisitions of \$14.3 and \$1.1, respectively, was allocated to our Specialty Products segment. Goodwill acquired during the period for our CSC acquisition of \$3.1 was allocated to our Repair, Service & Leasing segment.

⁽³⁾ During the year ended December 31, 2022, we recorded purchase price adjustments that decreased goodwill by \$12.0 in our Specialty Products segment related to the Earthly Labs Inc., L.A. Turbine and AdEdge acquisitions and by \$0.2 in our Repair, Service & Leasing segment. For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14 "Business Combinations."

The following table represents the activity in goodwill net of accumulated goodwill impairment loss ("goodwill, net") and accumulated goodwill impairment loss by segment for 2021 ⁽¹⁾:

	Repair, Service &				
	Cryo Tank Solutions	Heat Transfer Systems	Specialty Products	Leasing	Consolidated
Goodwill, net balance at December 31, 2020	\$ 93.2	\$ 435.2	\$ 172.4	\$ 165.1	\$ 865.9
Goodwill acquired during the period ⁽¹⁾ ⁽²⁾	—	2.9	127.1	10.1	140.1

Foreign currency translation adjustments and other	(8.3)	(4.5)	—	—	(12.8)
Purchase price adjustments ⁽³⁾	—	—	1.4	—	1.4
Goodwill, net balance at December 31, 2021	\$ 84.9	\$ 433.6	\$ 300.9	\$ 175.2	\$ 994.6
Accumulated goodwill impairment loss at December 31, 2020	\$ 23.5	\$ 49.3	\$ 35.8	\$ 20.4	\$ 129.0
Accumulated goodwill impairment loss at December 31, 2021	\$ 23.5	\$ 49.3	\$ 35.8	\$ 20.4	\$ 129.0

⁽¹⁾ For further information regarding goodwill acquired and the purchase price adjustments during the period refer to Note 14, "Business Combinations."

⁽²⁾ Goodwill acquired during the period for the L.A. Turbine acquisition of \$42.1 was allocated to certain reporting units as follows: \$29.1 - Specialty Products, \$10.1 - Repair, Service & Leasing and \$2.9 - Heat Transfer Systems. Goodwill acquired during the period for the Cryogenic Gas Technologies, Inc., AdEdge Holdings, LLC and Earthly Labs Inc. acquisitions was \$34.9, \$15.9 and \$47.2, respectively and is included in the Specialty Products segment.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

⁽³⁾ During the year ended December 31, 2021, we recorded purchase price adjustments that increased goodwill by \$1.4 in Specialty Products related to the BlueInGreen, LLC acquisition.

Intangible Assets

The following table displays the gross carrying amount and accumulated amortization for finite-lived intangible assets and indefinite-lived intangible assets (exclusive of goodwill) ⁽¹⁾:

		December 31, 2022		December 31, 2021		December 31, 2023		December 31, 2022	
		Weighted-average Estimated Useful Life	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount
Finite-lived intangible assets:	Finite-lived intangible assets:								
Customer relationships	Customer relationships	13 years	\$311.5	\$ (104.6)	\$312.1	\$ (82.2)			
Unpatented technology		14 years	202.5	(44.8)	184.6	(30.1)			
Patents and other		6 years	6.8	(2.0)	7.9	(2.3)			
Customer relationships									
Customer relationships									
Technology									
Patents, backlog and other									
Trademarks and trade names	Trademarks and trade names	16 years	2.5	(1.7)	3.5	(1.8)			
Land use rights	Land use rights	50 years	10.4	(1.7)	11.4	(1.6)			
Total finite-lived intangible assets	Total finite-lived intangible assets	14 years	\$533.7	\$ (154.8)	\$519.5	\$ (118.0)			
Indefinite-lived intangible assets:	Indefinite-lived intangible assets:								
Trademarks and trade names	Trademarks and trade names		\$156.4	\$ —	\$154.6	\$ —			
Trademarks and trade names									
Trademarks and trade names									

Trademarks and trade names					
Total intangible assets	Total intangible assets				
		\$690.1	\$ (154.8)	\$674.1	\$ (118.0)

(1) Amounts include the impact of foreign currency translation. Fully amortized or impaired amounts are written off.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

(2) Accumulated indefinite-lived intangible assets impairment loss was \$16.0 at both December 31, 2022 and December 31, 2023, and 2021, 2022.

Amortization expense for intangible assets subject to amortization was \$163.4, \$41.4, \$38.9 and \$45.7, \$38.9 for the years ended December 31, 2022, December 31, 2023, 2021, 2022, and 2020, 2021, respectively. We estimate amortization expense to be recognized during the next five years as follows:

For the Year Ending December 31,		For the Year Ending December 31,	
2023			
		\$	42.4
2024			
2024			
2024	2024		41.2
2025	2025		40.2
2026	2026		39.7
2027	2027		36.2
2028			

See Note 14, "Business Combinations," for further information related to intangible assets acquired.

Government Grants

During the fourth quarter 2021, we were selected by the U.S. Department of Energy ("DOE") for funding of up to \$5 million to engineer and build our Cryogenic Carbon Capture™ system for a cement plant. During the project's duration, the DOE shall reimburse us in cash for approved expenses we incur. This project began on February 1, 2022, at which point and as of December 31, 2023, we have received \$0.3 in reimbursed expenses incurred may be submitted for reimbursement. The agreement will be effective until April 30, 2025. We have not yet received any funding for this grant related to these grants.

We received certain government grants related to land use rights for capacity expansion in China ("China Government Grants"). China Government Grants are generally recorded in other current liabilities and other long-term liabilities in the consolidated balance sheets and generally recognized into income over the useful life of the associated assets (10 to 50 years).

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

China Government Grants are presented in our consolidated balance sheets as follows:

		December 31,	
		2022	2021
		December 31,	
		2023	2022
Current	Current	\$0.5	\$0.5
Long-term	Long-term	6.1	7.0
Total China Government Grants		\$6.6	\$7.5
Total			

We also received government grants from certain local jurisdictions within the United States, which are recorded in other assets in the consolidated balance sheets and were not significant for the periods presented.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

NOTE 10 — Debt and Credit Arrangements

Summary of Outstanding Borrowings

The following table represents the components of our borrowings:

		December 31,		December 31,	
		2022	2021	2023	2022
Senior secured and senior unsecured notes:	Senior secured and senior unsecured notes:				
Principal amount, senior secured notes due 2030 ⁽¹⁾					
Principal amount, senior secured notes due 2030 ⁽¹⁾					
Principal amount, senior secured notes due 2030 ⁽¹⁾	Principal amount, senior secured notes due 2030 ⁽¹⁾	\$1,460.0	\$ —		
Principal amount, senior unsecured notes due 2031 ⁽¹⁾	Principal amount, senior unsecured notes due 2031 ⁽¹⁾	510.0	—		
Unamortized discount	Unamortized discount	(29.9)	—		
Unamortized debt issuance costs	Unamortized debt issuance costs	(4.8)	—		
Senior secured and senior unsecured notes, net of unamortized discount and debt issuance costs	Senior secured and senior unsecured notes, net of unamortized discount and debt issuance costs	1,935.3	—		
Senior secured revolving credit facilities:					
Senior secured revolving credit facility due October 2026 ^{(2) (3)}		104.5	600.8		
Senior secured revolving credit facilities and term loans:					

Senior secured revolving credit facilities and term loans:			
Senior secured revolving credit facilities and term loans:			
Term loans due March 2030			
(2)			
Term loans due March 2030			
(2)			
Term loans due March 2030			
(2)			
Senior secured revolving credit facility due October 2026 (3)(4)			
Unamortized discount			
Unamortized debt issuance costs			
Senior secured revolving credit facility and term loan, net of unamortized discount and debt issuance costs			
Convertible notes due November 2024:	Convertible notes due November 2024:		
Convertible notes due November 2024:			
Convertible notes due November 2024:			
Principal amount	Principal amount	258.8	258.8
Principal amount			
Principal amount			
Unamortized debt issuance costs	Unamortized debt issuance costs	(1.9)	(2.9)
Convertible notes due November 2024, net of unamortized debt issuance costs	Convertible notes due November 2024, net of unamortized debt issuance costs	256.9	255.9
Other debt facilities (5)			
Other debt facilities (5)			
Other debt facilities (5)			

Total debt, net of debt issuance costs	2,296.7	856.7
Less: current maturities ⁽⁴⁾	256.9	255.9
Total debt, net of unamortized debt issuance costs		
Total debt, net of unamortized debt issuance costs		
Total debt, net of unamortized debt issuance costs		
Less: current maturities ⁽⁶⁾		
Long-term debt	\$2,039.8	\$600.8

- (1) The senior secured notes due 2030 (the "Secured Notes") and senior unsecured notes due 2031 (the "Unsecured Notes") bear interest at rates of 7.500% and 9.500% per year, respectively. Interest is payable semi-annually on January 1 and July 1 of each year, commencing July 1, 2023. The Secured Notes mature on January 1, 2030, and the Unsecured Notes mature on January 1, 2031.
- (2) A term loan due March 2030 was drawn prior to December 31, 2023 in conjunction with the Howden Acquisition. On June 30, 2023, we drew \$250.0 on an incremental term loan due March 2030. As of December 31, 2022 December 31, 2023, there was \$104.5 were \$1,631.0 in borrowings outstanding under term loans due March 2030 bearing an interest rate of 8.7%. See below for more information.
- (3) As of December 31, 2023, there were \$102.8 in borrowings outstanding under the senior secured revolving credit facility due October 2026 bearing a weighted-average an interest rate rate of 3.4% and \$89.1 6.2% (3.4% as of December 31, 2022) and \$272.0 in letters of credit and bank guarantees outstanding supported by the senior secured revolving credit facility due October 2026. As of December 31, 2022 December 31, 2023, the senior secured revolving credit facility due October 2026 had availability availability of \$806.4. \$625.2.
- (4) All A portion of our borrowings outstanding under under our senior secured revolving credit facilities facility due October 2026 are denominated in euros ("EUR Revolver Borrowings"). EUR Revolver Borrowings outstanding were euro 88.5 million (equivalent to \$97.8) at December 31, 2023 and euro 98.0 million euros (equivalent to \$104.5) at December 31, 2022.
- (4) Our convertible notes due November 2024, net During the year ended December 31, 2023, we recognized an unrealized foreign currency loss of debt issuance costs, are included in current maturities for both periods presented.

There are no scheduled principal payments for any of our debt instruments until November 2024. The \$258.8 principal balance \$3.2, relative to the translation of the convertible notes due November 2024 will mature on November 15, 2024, yet the carrying amount of the convertible notes due November 2024 is treated as current for financial statement reporting purposes. EUR Revolver

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Borrowings outstanding. During the year ended December 31, 2022, we recognized unrealized foreign currency gain of \$3.7, respectively, relative to the translation of the EUR Revolver Borrowings outstanding. This unrealized foreign currency loss (gain) is classified within foreign currency loss (gain) in the consolidated statements of income and comprehensive income for all periods presented.

- (5) Other debt facilities relate to a few local debt facilities that we assumed through the Howden Acquisition.
- (6) Our convertible notes due November 2024, net of unamortized debt issuance costs, are included in current maturities for both periods presented. Also included in current maturities for the current period are \$0.6 of other debt facilities.

The following table represents the scheduled maturities for our borrowings, excluding unamortized debt issuance costs, for the next 5 five years:

For the Year Ending December 31,		
2023	\$	—
For the Year Ended December 31,		
2024		
2024		
2024	2024	258.8
2025	2025	—
2026	2026	104.5
2027	2027	—
2028		

Unsecured Notes, 9.5% contractual interest coupon				
Unsecured Notes, 9.5% contractual interest coupon				
Unsecured Notes, 9.5% contractual interest coupon	Unsecured Notes, 9.5% contractual interest coupon	1.3		
Notes, total interest expense	Notes, total interest expense	\$ 4.4	\$ —	\$ —
Notes, total interest expense				
Notes, total interest expense				

Senior Secured Revolving Credit Facility and Term Loans

Senior Secured Revolving Credit Facility

On November 21, 2022, we entered into an amendment ("Amendment No. 1") to our **fifth Credit Agreement, which amended and restated our senior secured revolving credit agreement (the "SSRCF")**, dated as of October 18, 2021 (the "Credit Agreement" and as amended by the Amendment No. 1, the "Amended Credit Agreement" facility ("SSRCF"). The Amended Credit Agreement provides for a Senior Secured Revolving Credit Facility (the "Amended SSRCF"), which matures on October 19, 2026. Amendment No. 1 modifies certain provisions of the Credit Agreement to, among other things (i) permit the closing of the Acquisition and the related financing transactions, including the incurrence of up to \$3.375 billion of indebtedness under a senior bridge facility (the "Bridge Facility"); (ii) permit the incurrence of additional indebtedness to replace or refinance the Bridge Facility (either within the existing facility, or outside the facility, in each case on a pari passu, junior or unsecured basis) as well as additional incremental indebtedness or other equivalent indebtedness outside of the Bridge Facility, subject to ratio incurrence tests and a customary starter basket; (iii) adjust the financial covenants in the Amended Credit Agreement following effectiveness of the Acquisition by (A) reducing the interest coverage ratio to (x) 2.00 to 1.00 until the last day of the sixth full fiscal quarter after the closing of the Acquisition, and (y) 2.50 to 1.00 thereafter (the "Minimum Interest Coverage Ratio Levels"); and (B) increasing the total net leverage ratio covenant to (x) 6.00 to 1.00 until the last day of the fourth full fiscal quarter ending after the closing of the Acquisition, (y) 5.00 to 1.00 until the last day of the sixth full fiscal quarter ending after the closing of the Acquisition and (z) 4.50 to 1.00 thereafter (the "Maximum Total Net Leverage Ratio Levels"); and (iv) make certain other changes, including with respect to the ability to borrow in certain foreign currencies, and other modifications to the negative covenants to accommodate the business and operations of the companies to be acquired in the Acquisition within the Amended Credit Agreement.

- The Amended SSRCF has a borrowing capacity of \$1,000.0 and includes a sub limit for letters of credit that is the greater of (x) **\$350.00 \$350.0** and (y) **\$150.00 \$150.0** plus (1) the Dollar Amount (as of the Amended Closing Date) of the Assumed Letters of Credit plus (2) the Dollar Amount of any Letters of Credit issued on the Amendment Closing Date, a \$200.0 sub limit for discretionary letters of credit and a \$100.0 sub-limit for swingline loans.
- We may, subject to the satisfaction of certain conditions, request one or more new commitments and/or increase in the amount of the Amended SSRCF. Each incremental term commitment and incremental revolving commitment shall be in an aggregate principal amount that is not less than \$10.0 and shall be in an increment of \$1.0 to the extent existing or new lenders agree to provide such increased or additional commitments, as applicable.
- The Amended SSRCF bears interest at a base rate plus an applicable margin determined on a leveraged-based scale which (before giving effect to the sustainability pricing adjustments described below) ranges **from from 25 to 125 basis basis** points for base rate loans and 125 to 225 basis points for **LIBOR Secured Overnight Financing Rate ("SOFR")** loans.
- The applicable margin described above is subject to further adjustments based on the reductions in the ratio between (i) the total greenhouse gas emissions, measured in metric tons CO₂e, of Chart and its subsidiaries during such calendar year and (ii) the aggregate revenue, measured in U.S. Dollars, of Chart and its subsidiaries during such calendar year. These additional pricing adjustments range from an addition of 0.05% to a reduction of 0.05% in the applicable margin described above.
- We are required to pay commitment fees on any unused commitments under the **Amended SSRCF** which, before giving effect to the sustainability fee adjustments (as described below), is determined on a leverage-based sliding scale ranging from 20 to 35 basis points.
- The commitment fees described above are also subject to **sustainability sustainability** fee adjustments based on the aforementioned ratio. The sustainability fee adjustments range from an addition of 0.01% to a reduction of 0.01%.
- Interest and fees are payable on a quarterly basis (or if earlier, at the end of each interest period for **LIBOR SOFR** loans).

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

Significant financial covenants for the Amended SSRCF include financial maintenance covenants that, as of the last day of any fiscal quarter ending on and after September 30, 2021, (i) require the ratio of the amount of Chart and its subsidiaries' consolidated total net indebtedness to consolidated EBITDA to be less than the Maximum Total Net Leverage Ratio Levels and (ii) require the ratio of the amount of Chart and its subsidiaries' consolidated EBITDA to consolidated cash interest expense to be greater than the Minimum Interest Coverage Ratio Levels. The Amended SSRCF includes a number of other customary covenants including, but not limited to, restrictions on our ability to incur additional indebtedness, create liens or other encumbrances, sell assets, enter into sale and lease-back transactions, make certain payments, investments, loans, advances or guarantees, make acquisitions and engage in mergers or consolidations and pay dividends or distributions. At **December 31, 2022 December 31, 2023**, we were in compliance with all covenants.

The Amended SSRCF also contains customary events of default. If such an event of default occurs, the lenders thereunder would be entitled to take various actions, including the acceleration of amounts due and all actions permitted to be taken by a secured creditor. The Amended SSRCF is guaranteed by Chart and substantially all of its U.S.

subsidiaries, and secured by

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

substantially all of the assets of Chart and its U.S. subsidiaries and 65% of the capital stock of our material non-U.S. subsidiaries (as defined in by the Amended Credit Agreement) that are owned by U.S. subsidiaries.

In During 2022, we recorded recorded \$1.5 in deferred debt issuance costs related to the Amended SSRCF and included \$7.1 of the in unamortized debt issuance costs from previous credit facilities. During the first quarter of 2023, we recorded an additional \$0.4 in deferred debt issuance costs related to the Amended SSRCF.

On March 16, 2023, we entered into an amendment ("Amendment No. 2") under the Credit Agreement. Amendment No. 2 updates the benchmark interest rate provisions to replace the London interbank offered rate (LIBOR) with a term rate based on the Secured Overnight Financing Rate (Term SOFR) as the reference rate for purposes of calculating interest under the terms of the Credit Agreement.

We recorded \$0.4 in deferred debt issuance costs related to Amendment No. 2 and Amendment No. 3 further described under "Term Loans" below. Deferred debt issuance costs related to the Amended SSRCF which are presented in other assets in the consolidated balance sheet at December 31, 2022 sheets and are being amortized over the five-year term of the Amended SSRCF. At December 31, 2022, December 31, 2023 and 2022, unamortized debt issuance costs associated with the Amended SSRCF were \$8.4, \$6.4 and \$8.4, respectively.

Term Loans

On October 2, 2023, we entered into an amendment ("Amendment No. 5") under the Credit Agreement. Among other things, as more fully set forth therein, Amendment No. 5 reduces the interest rate margins applicable to the term loan facility by 50 basis points from 2.75% to 2.25%, in the case of base rate loans, and from 3.75% to 3.25%, in the case of Secured Overnight Financing Rate (SOFR) loans. Amendment No. 5 is a "Refinancing Amendment" permitted under the terms of Credit Agreement. Except as amended by Amendment No. 5, the remaining terms of the Credit Agreement remain in full force and effect.

In conjunction connection with the amendment Howden Acquisition, we borrowed incremental term loans in the aggregate principal amount of \$1,534.8 under the Credit Agreement ("Amendment No. 3 Term Loan"). Amendment No. 4 provided for the incurrence of incremental term loans in the aggregate principal amount of \$250.0 to be used for general corporate purposes, including to pay down our credit facilities, we wrote off \$0.1 Amended SSRCF without any resulting change to leverage ("Amendment No. 4 Term Loan"). On October 2, 2023, Chart refinanced the remaining aggregate principal amounts of both the Amendment No. 3 Term Loan and \$3.7 Amendment No. 4 Term Loan plus accrued interest in exchange for term loans in the aggregate principal amount of \$1,781.0 ("Amendment No. 5 Term Loan") which matures on March 18, 2030 and bears interest at the Term SOFR Rate plus 0.10%, plus an applicable margin of 3.25%, provided that if the adjusted rate is less than 0.50%, the rate will be deemed to be 0.50%, and are payable in equal quarterly installments beginning on December 31, 2023 in an amount equal to 0.25% of the unamortized aggregate principal amount. On December 4, 2023, Chart voluntarily prepaid a portion of the Amendment No. 5 Term Loan in the amount of \$150.0, which effectively prepaid all equal quarterly installments for the life of the loan, and as of December 31, 2023, the aggregate principal amount of \$1,631.0 is due at the March 18, 2030 maturity date.

Chart may elect the interest rate for the Amendment No. 5 Term Loan equal to (i) Adjusted Term SOFR (Term SOFR plus a credit spread adjustment of 0.10%; provided that Adjusted Term SOFR shall not be less than 0.50%) plus the Applicable Margin (3.25%), or (ii) the Alternate Base Rate (a rate per annum equal to the greatest of (a) the rate of interest last quoted by The Wall Street Journal in the U.S. as the prime rate, (b) the NYFRB Rate in effect plus 0.50%, (c) Adjusted Term SOFR for a one month Interest Period plus 1.00%, and (d) 1.50%) plus the Applicable Margin (2.25%). Chart may elect interest periods of 1, 3, or 6 months. Interest shall be payable in arrears for (a) for loans accruing interest at a rate based on Adjusted Term SOFR, at the end of each interest period and, for interest periods of greater than three months, every three months, and on the applicable maturity date and (b) for loans accruing interest based on the Alternate Base Rate, quarterly in arrears and on the applicable maturity date.

The allowance of incremental facilities is substantially identical to those in the Amended SSRCF, except (i) to permit the incurrence of a standalone letter of credit facility and (ii) that if the yield of any incremental facility that is in a U.S. dollar denominated term loan facility that is secured by liens on the collateral that is incurred within twelve months after the Closing Date, the applicable margins for the Amendment No. 5 Term Loan may increase under certain circumstances. Additionally, the refinancing facilities are substantially identical to those set forth in the Amended SSRCF.

Prepayments are mandatory only in the following circumstances: (i) after certain non-ordinary course asset sales or other non-ordinary course dispositions of property occur, unless (a) the net cash proceeds are reinvested (or committed to be

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

reinvested) in the business within 12 months, and if so committed to be reinvested, are actually reinvested within 6 months after the initial 12-month period or (b) a portion of the net cash proceeds are used to ratably prepay any indebtedness that is equal in seniority to the Amendment No. 5 Term Loan, (ii) beginning January 1, 2025, 50% of excess cash flow of Chart and its subsidiaries as calculated for the prior fiscal year shall be used to prepay the term loans due 2030, subject to step-downs on the required percentage of excess cash flow based on the Total Net Leverage Ratio and (iii) 100% of the net cash proceeds of issuances of debt obligations of Chart and our restricted subsidiaries after the Closing Date, except for a portion of such net cash proceeds that are used to ratably prepay any indebtedness that is equal in seniority to the Amendment No. 5 Term Loan.

Chart may prepay the Amendment No. 5 Term Loan in whole or in part at any time without penalty or premium, with the exception of a repricing event with respect to all or any portion of the term loans due 2030 that occurs on or before the date that is six months after the Closing Date.

The Amendment No. 5 Term Loan will be equal in right of payment with any other senior indebtedness of Chart and, if needed, shall be subject to an equal intercreditor agreement with respect to the Amended SSRCF.

The Amendment No. 5 Term Loan is guaranteed by each wholly-owned domestic subsidiary that is also a guarantor under the Amended SSRCF.

Significant financial covenants and customary events of default for the Amendment No. 5 Term Loan is substantially identical to those in the Amended SSRCF.

We initially recorded \$38.9 in debt discount and \$37.2 in deferred debt issuance costs associated with our previous senior secured revolving credit facility the term loans due June 2024 2030, which are being amortized over the applicable term using the effective interest method. As a result of the events of both the October 2, 2023 Credit Agreement amendment (Amendment No. 5) and the term loan due June 2024, respectively. In addition to these amounts, December 4, 2023 partial prepayment of the Amendment No. 5 Term Loan, we also immediately expensed recognized a loss on extinguishment of debt of \$7.8 for the year ended December 31, 2023. A further \$0.3 in new debt issuance costs associated with the Amended Credit Agreement in accordance with applicable accounting guidance. These charges were immediately expensed and classified as financing costs amortization in our consolidated the statement of income for the year ended December 31, 2021 December 31, 2023. The unamortized debt discount and summarized deferred debt issuance costs are \$35.8 and \$32.5, respectively, as of December 31, 2023. We recorded \$3.5 in interest accretion of the table below, term loans due March 2030 discount for the year ended December 31, 2023.

The following table summarizes interest expense and financing costs amortization related to the Amended SSRCF and our previous credit facilities: term loans due March 2030:

		Year Ended December 31,		
		2022	2021	2020
		Year Ended December 31,		
		2023	2022	2021
Interest expense, senior secured revolving credit facilities due October 2026	Interest expense, senior secured revolving credit facilities due October 2026	\$23.4	\$2.5	\$ —
Interest expense, term loan due June 2024	Interest expense, term loan due June 2024	—	1.8	4.8
Interest expense, term loans due March 2030				
Interest expense, senior secured revolving credit facilities due June 2024	Interest expense, senior secured revolving credit facilities due June 2024	—	4.7	2.2
Total interest expense	Total interest expense	\$23.4	\$9.0	\$7.0
Financing costs amortization, senior secured revolving credit facility due October 2026	Financing costs amortization, senior secured revolving credit facility due October 2026	\$ 1.9	\$0.4	\$ —

Financing costs			
amortization, senior			
secured revolving credit			
facility and term loan due			
June 2024, write off of			
unamortized deferred			
debt issuance costs	—	3.8	—
Financing costs			
amortization, new debt			
issuance costs			
immediately charged to			
net income	—	0.3	—
Financing costs			
amortization, senior			
secured revolving credit			
facility due October 2026			
Financing costs			
amortization, senior			
secured revolving credit			
facility due October 2026			
Financing			
costs			
amortization,			
term loans			
due March			
2030			
Financing			
costs			
amortization,			
senior			
secured			
revolving			
facility and			
term loan			
due June			
2024, write			
off of			
unamortized			
deferred			
debt			
issuance			
costs			
Financing			
cost			
amortization,			
new debt			
issuance			
costs			
immediately			
charged to			
net income			

Financing costs amortization, senior secured revolving credit facility and term loan due June 2024	Financing costs amortization, senior secured revolving credit facility and term loan due June 2024	—	2.9	3.6
Total financing costs amortization	Total financing costs amortization	\$ 1.9	\$7.4	\$3.6

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

2024 Convertible Notes

On November 6, 2017, we issued 1.00% Convertible Senior Subordinated Notes due November 2024 (the "2024 Notes") in the aggregate principal amount of \$258.8, pursuant to an Indenture, dated as of such date (the "Indenture"). On December 31, 2020, we entered into the First Supplemental Indenture (the "Supplemental Indenture") to the Indenture, between Chart and Wells Fargo Bank, National Association, as trustee, governing the 2024 Notes. Pursuant to the Supplemental Indenture, Chart irrevocably elected (i) to eliminate Chart's option to elect Physical Settlement (as defined in the Indenture) on any conversion of 2024 Notes that occurs on or after the date of the Supplemental Indenture and (ii) that, with respect to any Combination

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Settlement (as defined in the Indenture) for a conversion of 2024 Notes, the Specified Dollar Amount (as defined in the Indenture) that will be settled in cash per \$1,000 principal amount of the Notes shall be no lower than \$1,000. The 2024 Notes bear interest at an annual rate of 1.00%, payable on May 15 and November 15 of each year, beginning on May 15, 2018, and will mature on November 15, 2024 unless earlier converted or repurchased.

The 2024 Notes are senior subordinated unsecured obligations of the Company and are not guaranteed by any of our subsidiaries. The 2024 Notes are senior in right of payment to our future subordinated debt, equal in right of payment with the Company's future senior subordinated debt and are subordinated in right of payment to our existing and future senior indebtedness, including indebtedness under our existing credit agreement.

Prior to December 31, 2020, a conversion of the 2024 Notes could have been settled in cash, shares of our common stock or a combination of cash and shares of our common stock, at our election (subject to, and in accordance with, the settlement provisions of the Indenture). After December 31, 2020, a conversion of the 2024 Notes may be settled in either (1) cash or (2) cash for the principal amount of the 2024 Notes and any combination of cash and shares for the excess settlement amount above the principal amount of the 2024 Notes, at our election (subject to, and in accordance with, the settlement provisions of the Indenture and Supplemental Indenture).

The initial conversion rate for the 2024 Notes is 17.0285 shares of common stock (subject to adjustment as provided for in the Indenture) per \$1,000 principal amount of the 2024 Notes, which is equal to an initial conversion price of approximately \$58.725 per share, representing a conversion premium of approximately 35% above the closing price of our common stock of \$43.50 per share on October 31, 2017. In addition, following certain corporate events that occur prior to the maturity date as described in the Indenture, we will pay a make-whole premium by increasing the conversion rate for a holder who elects to convert its 2024 Notes in connection with such a corporate event in certain circumstances. For purposes of calculating earnings per share, if the average market price of our common stock exceeds the applicable conversion price during the periods reported, shares contingently issuable under the 2024 Notes will have a dilutive effect with respect to our common stock. Since our closing common stock price of \$115.23 \$136.33 at the end of the period exceeded the conversion price of \$58.725, the if-converted value exceeded the principal amount of the 2024 Notes by approximately \$249.0 \$341.9 at December 31, 2022 December 31, 2023. As described below, we entered into convertible note hedge transactions, which are expected to reduce the potential dilution with respect to our common stock upon conversion of the 2024 Notes.

Holders of the 2024 Notes may convert their 2024 Notes at their option at any time prior to the close of business on the business day immediately preceding August 15, 2024 only under the following circumstances: (1) during any fiscal quarter commencing after December 31, 2017 (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the applicable conversion price for the 2024 Notes on each applicable trading day; (2) during the five business day period after any 10 consecutive trading day period (the "measurement period") in which the "trading price" (as defined in the Indenture) per one thousand U.S. dollar principal amount of Notes for each trading day of such measurement period was less than 97% of the product of the last reported sale price of our common stock and the applicable

conversion rate for the 2024 Notes on each such trading day; or (3) upon the occurrence of specified corporate events described in the Indenture. On or after August 15, 2024 until the close of business on the second scheduled trading day immediately preceding November 15, 2024, holders may convert their 2024 Notes at the option of the holder regardless of the foregoing circumstances.

As of January 1, 2023 January 1, 2024, the 2024 Notes continue to be convertible at the option of the shareholders. This conversion right, which will remain available until March 31, 2023 March 31, 2024, was triggered since the closing price of our common stock was was greater than or equal to \$76.3425 (130% of the conversion price of the 2024 Notes) for at least 20 trading days during the last 30 trading days ending on December 31, 2022 December 31, 2023. Since We will reassess the holders convertibility of the 2024 Notes could potentially convert their 2024 Notes at their option during the three month period subsequent to December 31, 2022, the \$258.8 on a quarterly basis. The \$258.7 principal amount of the 2024 Notes is due in November 2024 and was classified as a current liability in the consolidated balance sheet at December 31, 2022 December 31, 2023. We reassess As of December 31, 2022, the convertibility 2024 Notes were convertible at the option of the holders, therefore the \$258.8 principal amount of the 2024 Notes and was also classified as a current liability in the related consolidated balance sheet classification on a quarterly basis. at December 31, 2022. There have been no significant conversions as of the date of this filing.

After the adoption of ASU 2020-06, we recorded an adjustment to the debt issuance costs contra liability and equity (additional paid-in-capital) components as if debt issuance costs had always been treated as a contra liability only. We amortize the adjusted unamortized debt issuance costs balance over the term of the 2024 Notes using the effective interest method.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Refer to Note 2 "Significant Accounting Policies" for further discussion regarding the cumulative effect of the changes to our consolidated balance sheet as of January 1, 2021 from the adoption of ASU 2020-06.

The following table summarizes interest accretion of the 2024 Notes discount, 1.0% contractual contractual interest coupon and financing costs amortization associated with the 2024 Notes:

Year Ended December 31,			Year Ended December 31,		
Year Ended December 31,			2023	2022	2021
	2022	2021	2020		
2024 Notes, interest accretion of convertible notes discount	\$ —	\$ —	\$ 8.0		
2024 Notes, 2024 Notes, 1.0% contractual interest coupon, 1.5% for 2022	4.0	2.6	2.6		
2024 Notes, total interest expense	\$4.0	\$2.6	\$10.6		
2024 Notes, 2024 Notes, financing costs amortization	\$0.9	\$0.9	\$ 0.7		
2024 Notes, financing costs amortization					
2024 Notes, financing costs amortization					

Convertible Note Hedge and Warrant Transactions Associated with the 2024 Notes

In connection with the pricing of the 2024 Notes, we entered into privately negotiated convertible note hedge transactions (the "Note Hedge Transactions") with certain parties, including affiliates of the initial purchasers of the 2024 Notes (the "Option Counterparties"). The which relate to 4.41 shares of our common stock and represents the number of shares of our common stock underlying the 2024 Notes. These Note Hedge Transactions are expected generally to reduce the potential dilution upon any future conversion of the 2024 Notes. Notes to the extent that the market price per share of our common stock exceeds the conversion price of \$58.725 per share. Payments for the Note Hedge Transactions totaled approximately \$59.5 and were recorded as a reduction to additional paid-in capital in the December 31, 2017 consolidated balance sheet.

We also entered into separate, privately negotiated warrant transactions (the "Warrant Transactions") with the Option Counterparties to acquire up to 4.41 shares of our common stock. Proceeds received from the issuance of the Warrant Transactions totaled approximately \$46.0 and were recorded as an addition to additional paid-in capital in the December 31, 2017 consolidated balance sheet. The strike price of the Warrant Transactions will initially be \$71.775 per share (subject to adjustment), which is approximately 65%

above the last reported sale price of our common stock on October 31, 2017. The Warrant Transactions could have a dilutive effect to our stockholders to the extent that the market price per share of our common stock, as measured under the terms of the Warrant Transactions, exceeds the applicable strike price of the warrants.

The Note Hedge Transactions and Warrant Transactions effectively increased the conversion price of the 2024 Notes. The net cost of the Note Hedge Transactions and Warrant Transactions was approximately \$13.5.

Committed Bridge Loan Facility

On November 8, 2022, in connection with the execution of the agreement to acquire Howden, the Company entered into a debt commitment letter with JPMorgan Chase Bank, N.A. and Morgan Stanley Senior Funding, Inc. (the "Commitment Parties"), pursuant to which, and subject to the terms and conditions, the Commitment Parties have agreed to provide approximately \$3.375 billion in aggregate principal amount of senior bridge loans under a 364-day senior bridge loan credit facility. As of December 31, 2022, the remaining availability facility (the "Bridge Facility"). We did not draw on the Bridge Facility, was amended as we secured permanent financing prior to \$1,467.1. Additional the close of the Howden Acquisition. There is no remaining availability following the close of the Howden Acquisition, and the Bridge Facility has been terminated.

Bridge Facility fees of \$26.1 will be were incurred during the first quarter of 2023 upon successful closing of the Howden acquisition

As of December 31, 2022, we incurred \$29.5 in expense in connection with the Bridge Facility commitment which is Acquisition and classified in acquisition related finance fees in the consolidated statement of income for the year ended December 31, 2023. We also incurred \$29.5 in Bridge Facility fees during the year ended December 31, 2022 and had no borrowings outstanding on paid the Bridge Facility. We do not intend to draw on the total of \$55.6 in Bridge Facility fees at the close of the Howden Acquisition.

Interest Expense, Net

Gross interest expense related to debt for the year ended December 31, 2023 was we have secured permanent financing.

Committed Term Loan B

On November 30, 2022, we entered into a debt commitment letter with JPMorgan Chase Bank, N.A. \$299.0 and included \$109.7, \$48.6 and \$119.5 in interest related to our Secured Notes, Unsecured Notes and term loans due 2030, respectively. Gross interest expense for a the year ended December 31, 2023 included \$2.4 interest expense related to our convertible notes due November 2024 and \$27.7 in interest related to borrowings on our senior secured term loan revolving credit facility ("Term Loan B") due 2026.

The increase in an aggregate amount gross interest expense was partially offset by \$21.5 in interest income on deposits, for the year ended December 31, 2023, respectively. This income was primarily earned from deposit of up to \$1,434.8. Term Loan B will mature on proceeds from the date that is seven years after senior secured notes due 2030, senior unsecured notes due 2031, common stock and preferred stock offerings into interest bearing accounts until the closing date consummation of the Acquisition ("Closing Date"). At the Closing Date, the proceeds of Term Loan B shall finance, in part, the cash and consideration payable in connection with the Acquisition and related transaction costs. Term Loan B is available in a single drawing on the Closing Date.

Chart can elect the interest rate for Term Loan B equal to (i) Adjusted Term SOFR (Term SOFR plus a credit spread adjustment of 0.10%; provided that Adjusted Term SOFR shall not be less than 0.50%) plus the Applicable Margin (3.75%), or Howden Acquisition.

CHART INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and shares in millions, except per share amounts)

(ii) the Alternate Base Rate (a rate per annum equal to the greatest of (a) the rate of interest last quoted by The Wall Street Journal in the U.S. as the prime rate, (b) the NYFRB Rate in effect plus 0.50%, (c) Adjusted Term SOFR for a one month Interest Period plus 1.00%, and (d) 1.50% plus the Applicable Margin (2.75%). Chart may elect interest periods of 1, 3, or 6 months. Interest shall be payable in arrears for (a) for loans accruing interest at a rate based on Adjusted Term SOFR, at the end of each interest period and, for interest periods of greater than three months, every three months, and on the applicable maturity date and (b) for loans accruing interest based on the Alternate Base Rate, quarterly in arrears and on the applicable maturity date.

The allowance of incremental facilities is substantially identical to those in the Amended SSRCF, except (i) to permit the incurrence of a standalone letter of credit facility and (ii) that if the yield of any incremental facility that is in a U.S. dollar denominated term loan facility that is secured by liens on the collateral that is incurred within twelve months after the Closing Date, the applicable margins for Term Loan B may increase under certain circumstances. Additionally, the refinancing facilities are substantially identical to those set forth in the Amended SSRCF.

Prepayments are mandatory only in the following circumstances: (i) unless the net cash proceeds are reinvested (or committed to be reinvested) in the business within 12 months, and if so committed to be reinvested, are actually reinvested within 6 months after the initial 12-month period, after certain non-ordinary course asset sales or other non-ordinary course dispositions of property occur, (ii) 50% of excess cash flow of Chart and its subsidiaries shall be used to prepay Term Loan B, and (iii) 100% of the net cash proceeds of issuances of debt obligations of Chart and our restricted subsidiaries after the Closing Date.

Chart may prepay Term Loan B in whole or in part at any time without penalty or premium, with the exception of a repricing event with respect to all or any portion of Term Loan B that occurs on or before the date that is six months after the Closing Date.

Term Loan B will be equal in right of payment with any other senior indebtedness of Chart and, if needed, shall be subject to an equal intercreditor agreement with respect to the Amended SSRCF.

Term Loan B is guaranteed by each wholly-owned domestic subsidiary that is also a guarantor under the Amended SSRCF.

Significant financial covenants and customary events of default for Term Loan B are substantially identical to those in the Amended SSRCF.

Foreign Other Debt Facilities

In various markets where we do business, we have local credit facilities to meet local working capital demands, fund letters of credit and bank guarantees, and support other short-term cash requirements. The facilities generally have variable interest rates and are denominated in local currency but may, in some cases, facilitate borrowings in multiple currencies. As of December 31, 2022 and 2021 there were no borrowings outstanding under these facilities. As of December 31, 2022 and 2021, December 31, 2023, we had additional capacity of U.S. dollar equivalent \$72.5 equivalent \$87.6.

Certain of our other debt facilities allow us to request bank guarantees and \$82.4, respectively. Chart had foreign letters of credit. None of these facilities allow revolving credit borrowings. We have letters of credit and bank guarantees totaling U.S. dollar equivalent outside of our Credit Agreement that totaled USD equivalents \$134.3 and \$45.7 as of December 31, 2023 and \$31.2 as of December 31, 2022 and 2021, 2022, respectively.

Restricted Cash

As of December 31, 2023, we had \$12.8 cash classified as restricted cash on our consolidated balance sheet, which primarily relates to Howden Thomassen Compressors B.V., a wholly-owned subsidiary of Chart, to secure guarantees. As of December 31, 2022, we had restricted cash of \$1,941.7 from the proceeds of the Secured Notes and Unsecured Notes which will be used to fund the Howden Acquisition.

L.A. Turbine, a wholly-owned subsidiary of the Company, had \$0.2 in deposits in a bank outside the Amended SSRCF to secure letters of credit at December 31, 2021. The deposits are treated as restricted cash and restricted cash equivalents in the consolidated balance sheet (\$0.2 in other current assets at December 31, 2021).

Fair Value Disclosures

The following table summarizes the fair value of the 2024 Notes was approximately 201% and 276% our actively quoted debt instruments as a percentage of their par value as of December 31, 2022 and 2021, respectively. (a)

	December 31,	
	2023	2022
Convertible notes due November 2024	234 %	201 %
Senior secured notes due 2030	105 %	101 %
Senior unsecured notes due 2031	109 %	103 %
Term loans due March 2030	100 %	— %

(a) The 2024 Notes, Secured Notes, Unsecured Notes and term loans due 2030 are actively quoted instruments and, accordingly, the their fair value of the 2024 Notes was values were determined using Level 1 inputs.

The carrying amounts of borrowings outstanding on our senior secured revolving credit facility approximate fair value, as the interest rate is variable and reflective of the Secured Notes and Unsecured notes was approximately 101% and

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

103%, respectively, market rates (categorized as Level 2 of their par value as of December 31, 2022. The Secured Notes and Unsecured Notes are actively quoted instruments and, accordingly, the fair value of the 2024 Notes was determined using Level 1 inputs. hierarchy).

NOTE 11 — Shareholders' Equity

Series B Mandatory Convertible Preferred Stock

On December 13, 2022, we completed a preferred stock offering, through which Chart issued and sold 8.050 million depositary shares, each representing a 1/20th interest in a share of Chart's 6.75% Series B Mandatory Convertible Preferred Stock, liquidation preference \$1,000.00 per share, par value \$0.01 per share (the "Mandatory Convertible Preferred Stock"). The amount issued included 1.050 million depositary shares issued pursuant to the exercise in full of the option granted to the underwriters to purchase additional depositary shares. We received gross proceeds of \$402.5 from the issuance of shares less \$14.4 of equity issuance costs. The proceeds will be used to fund our previously announced the acquisition of Howden.

Dividends. Dividends on the Mandatory Convertible Preferred Stock will be payable on a cumulative basis when, as and if declared at an annual rate of 6.75% on the liquidation value of \$1,000 per share. Chart may pay declared dividends in cash or, subject to certain limitations, in shares of common stock, or in any combination of cash and shares of common stock on March 15, June 15, September 15 and December 15 of each year, commencing on March 15, 2023 and ending on, and including, December 15, 2025. We declared and paid \$27.3 in dividends for the year ended December 31, 2023. The accumulated but undeclared amount of dividends as of December 31, 2022 is was \$1.4. Both amounts of \$27.3 and \$1.4 and was are treated as a reduction to income attributable to common shareholders in the computation of earnings per share. share for the years ended December 31, 2023 and 2022, respectively.

Mandatory Conversion. Unless earlier converted, each share of the Mandatory Convertible Preferred Stock will automatically convert on the mandatory conversion date, which is expected to be December 15, 2025, into not less than 7.0520

CHART INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

and not more than 8.4620 shares of common stock per share of Mandatory Convertible Preferred Stock, depending on the applicable market value and subject to certain anti-dilution adjustments. Correspondingly, the conversion rate per depositary share will be not less than 0.3526 and not more than 0.4231 shares of common stock per depositary share. The conversion rate will be determined based on a preceding 20-day volume-weighted-average-price of common stock.

The following table illustrates the conversion rate per share of the Mandatory Convertible Preferred Stock, subject to certain anti-dilution adjustments, based on the applicable market value of the common stock:

Applicable Market Value of Common Stock	Conversion Rate per Share of Mandatory Convertible Preferred Stock
Greater than \$141.8037 (threshold appreciation price)	7.0520 shares of common stock
Equal to or less than \$141.8037 but greater than or equal to \$118.1754	Between 7.0520 and 8.4620 shares of common stock, determined by dividing \$1,000 by the applicable market value
Less than \$118.1754 (initial price)	8.4620 shares of common stock

The following table illustrates the conversion rate per depositary share, subject to certain anti-dilution adjustments, based on the applicable market value of the common stock:

Applicable Market Value of Common Stock	Conversion Rate per Depositary Share
Greater than \$141.8037 (threshold appreciation price)	0.3526 shares of common stock
Equal to or less than \$141.8037 but greater than or equal to \$118.1754	Between 0.3526 and 0.4231 shares of common stock, determined by dividing \$50 by the applicable market value
Less than \$118.1754 (initial price)	0.4231 shares of common stock

Optional Conversion of the Holder. Other than during a fundamental change conversion period, at any time prior to December 15, 2025, a holder of the Mandatory Convertible Preferred Stock may elect to convert such holder's shares of Mandatory Convertible Preferred Stock, in whole or in part, at the Minimum Conversion Rate of 7.0520 shares of common stock per share of Mandatory Convertible Preferred Stock (equivalent to 0.3526 shares of common stock per depositary share), subject to certain anti-dilution and other adjustments. Because each depositary share represents a 1/20th fractional interest in a share of Mandatory Convertible Preferred Stock, a holder of depositary shares may convert its depositary shares only in lots of 20 depositary shares.

Fundamental Change Conversion. If a fundamental change occurs on or prior to December 15, 2025, holders of the Mandatory Convertible Preferred Stock will have the right to convert their shares of Mandatory Convertible Preferred Stock, in

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

whole or in part, into shares of common stock at the fundamental change conversion rate during the period beginning on, and including, the effective date of such fundamental change and ending on, and including, the earlier of (a) the date that is 20 calendar days after such effective date (or, if later, the date that is 20 calendar days after holders receive notice of such fundamental change) and (b) December 15, 2025. Holders who convert shares of the Mandatory Convertible Preferred Stock during that period will also receive a make-whole dividend amount comprised of a fundamental change dividend make-whole amount, and to the extent there is any, the accumulated dividend amount. Because each depositary share represents a 1/20th fractional interest in a share of the Series B Preferred Stock, a holder of depositary shares may convert its depositary shares upon a fundamental change only in lots of 20 depositary shares.

Ranking. The Mandatory Convertible Preferred Stock, with respect to anticipated dividends and distributions upon Chart's liquidation or dissolution, or winding-up of Chart's affairs, ranks or will rank:

- senior to our common stock and each other class or series of capital stock issued after the initial issue date of the Mandatory Convertible Preferred Stock, the terms of which do not expressly provide that such capital stock ranks either senior to the Mandatory Convertible Preferred Stock or on a parity with Mandatory Convertible Preferred Stock;
- equal with any class or series of capital stock issued after the initial issue date the terms of which expressly provide that such capital stock will rank equal with the Mandatory Convertible Preferred Stock;
- junior to the Series A Preferred Stock, if issued, and each other class or series of capital stock issued after the initial issue date that is expressly made senior to the Mandatory Convertible Preferred Stock;

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

- junior to our existing and future indebtedness; and
- structurally subordinated to any existing and future indebtedness of our subsidiaries as well as the capital stock of our subsidiaries held by third parties.

Voting Rights. Holders of Mandatory Convertible Preferred Stock generally will not have voting rights. Whenever dividends on shares of Mandatory Convertible Preferred Stock have not been declared and paid for six or more dividend periods (including, for the avoidance of doubt, the dividend period beginning on, and including, the initial issue date and ending on, but excluding, March 15, 2023), whether or not for consecutive dividend periods, the holders of such shares of Mandatory Convertible Preferred Stock, voting together as a single class with holders of all other series of voting preferred stock of equal rank, then outstanding, will be entitled at our next annual or special meeting of stockholders to vote for the election of a total of two additional members of our board of directors, subject to certain limitations. This right will terminate if and when all accumulated and unpaid dividends have been paid in full, or declared and a sum sufficient for such payment shall have been set aside. Upon such termination, the term of office of each preferred stock director so elected will terminate at such time and the number of directors on our board of directors will automatically decrease by two, subject to the revesting of such rights in the event of each subsequent nonpayment.

Embedded Derivatives. There are no material embedded derivatives that meet the criteria for bifurcation and separate accounting pursuant to ASC 815-15, Embedded Derivatives.

Common Stock

On December 13, 2022, we completed a public offering (the "2022 Equity Offering"), through which Chart issued and sold 5.924 million shares of common stock, \$0.01 par value per share. We received gross proceeds of \$700.0 from the issuance of shares less \$24.9 of equity issuance costs. **The**

On January 10, 2023, we completed a public offering (the "Partial Greenshoe"), through which Chart issued and sold 0.11 shares of common stock, \$0.01 par value per share. We received gross proceeds **will be** of \$12.1 from the issuance of shares less \$0.4 of equity issuance costs. Proceeds from both the 2022 Equity Offering and Partial Greenshoe were used to fund **our previously announced acquisition of Howden. the Howden Acquisition.**

NOTE 12 — Financial Instruments and Derivative Financial Instruments

Concentrations of Credit Risks: We sell our products primarily to gas producers, distributors, and end-users across energy, industrial, power, HVAC and refining applications in countries throughout the world. **Approximately 42%** **Approximately 59%, 56%** **42%, and 51%** **56%** of sales were to customers in foreign countries in **2023, 2022, 2021** and **2020, 2021**, respectively.

In **2023, 2022, 2021** and **2020, 2021**, no single customer accounted for more than 10% of consolidated sales. Sales to our top ten customers accounted for **38%** **25%, 39%** **38%** and **42%** **39%** of consolidated sales in **2023, 2022, 2021** and **2020, 2021**, respectively. Our sales to particular

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

customers fluctuate from period to period, but our large industrial gas producer and distributor customers tend to be a consistently substantial source of revenue for us.

We are subject to concentrations of credit risk with respect to our cash and cash equivalents, restricted cash and restricted cash equivalents and forward foreign currency exchange contracts. To minimize credit risk from these financial instruments, we enter into arrangements with major banks and other quality financial institutions and invest only in high-quality instruments. We do not expect any counterparties to fail to meet their obligations.

Changes in the fair value of our foreign currency forward contracts are recorded in the consolidated statements of income as foreign currency gains or losses. The changes in fair value with respect to our foreign currency forward contracts generated net gains of \$1.4, \$1.1, \$1.3 for the years ended December 31, 2022, 2021 and 2020, respectively.

Derivatives and Hedging

We utilize a combination of cross-currency swaps and foreign exchange collars (together the "Foreign Exchange **Collar** Contracts") as a net investment hedge of a portion of our investments in certain international subsidiaries that use the euro as their functional currency in order to reduce the volatility caused by changes in exchange rates. **On April 1, 2022 As a result of our acquisition of Howden, we entered into are also a pay-fixed rate, receive-fixed rate cross-currency swap that provided for an exchange of principal on party to foreign currency contracts not designated as hedging instruments (the "Foreign Currency Contracts") which are used to mitigate the risk associated with cash management activities and customer forward sale agreements denominated in currencies other than the applicable local currency, and to match costs and expected revenues where production facilities have a notional amount of \$110.2 swapped to euro 100.0 million on its March 31, 2025 maturity different currency than the selling currency.**

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.8% shares in millions, except per annum. We terminated this cross-currency swap on June 7, 2022, and a total settlement of \$3.6 cash was received from the counterparties. The settlement amount, which represents the fair value of the contract at the time of termination, was recorded as a reduction in other assets during the second quarter of 2022 and remains classified in accumulated other comprehensive loss on the consolidated balance sheet. share amounts)

On June 7, 2022, immediately following the termination of the aforementioned cross-currency swap, we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provides for an exchange of principal on a notional amount of \$106.7 swapped to euro 100.0 million on its May 31, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.6% per annum. We terminated this cross-currency swap on July 8, 2022, and a

total settlement of \$4.0 cash was received from the counterparties. The settlement amount, which represents the fair value of the contract at the time of termination, was recorded as a reduction in other assets during the third quarter of 2022 and remains classified in accumulated other comprehensive loss on the consolidated balance sheet.

On July 8, 2022, immediately following the termination of the aforementioned cross-currency swap, we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provides for an exchange of principal on a notional amount of \$101.6 swapped to euro 100.0 million on its June 30, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.8% per annum. We terminated this cross-currency swap on September 16, 2022, and a total settlement of \$1.8 cash was received from the counterparties. The settlement amount, which represents the fair value of the contract at the time of termination, was recorded as a reduction in other assets during the third quarter of 2022 and remains classified in accumulated other comprehensive loss on the consolidated balance sheet.

On September 16, 2022, immediately following the termination of the aforementioned cross-currency swap, we entered into a pay-fixed rate, receive-fixed rate cross-currency swap that provides for an exchange of principal on a notional amount of \$99.8 swapped to euro 100.0 million on its June 30, 2025 maturity and receipt of U.S. dollar interest from our swap counterparties at a fixed rate of 1.6% per annum (the "September 16 Swap"). Concurrent to entering into the September 16 Swap, we also entered into a separate zero cost foreign exchange collar contract (the "Collar Contract") with the same counterparties, notional amount and expiration date as the September 16 Swap. Under the Collar Contract, we sold a put option with a lower strike price and purchased a call option with an upper strike price to manage final settlement of the September 16 Swap.

Our Foreign Exchange Currency Contracts are measured at fair value with changes in fair value recorded as within foreign currency translation adjustments (gain) loss. We classify cash flows related to our Foreign Currency Contracts as operating activities within accumulated other comprehensive loss, our consolidated statements of cash flows. The notional value of our Foreign Currency Contracts was \$393.5 as of December 31, 2023. Our Foreign Exchange Contracts derivative contracts are entered into with major financial institutions in order to reduce credit risk and risk of nonperformance by third parties. We believe the credit risks with respect to the counterparties, and the foreign currency risks that would not be hedged if the counterparties fail to fulfill their obligations under the contract, are not material in view of our understanding of the financial strength of the counterparties. The Foreign Exchange Contracts Our derivative contracts are not exchange traded instruments and their fair value is determined using the cash flows of the contracts, discount rates to account for the passage of time, implied volatility, current foreign exchange

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

market data and credit risk, which are all based on inputs readily available in public markets and categorized as Level 2 fair value hierarchy measurements.

The following table represents the fair value of our asset and liability derivatives:

		Asset Derivatives		Liability Derivatives	
		December 31,	December 31,	December 31,	December 31,
		2023	2022	2023	2022
Derivatives designated as net investment hedge	Balance Sheet Location	Fair Value	Fair Value	Balance Sheet Location	Fair Value
Foreign Exchange Collar Contracts ⁽¹⁾	Other assets	\$ —	\$ —	Other long-term liabilities	\$ 6.0
Total derivatives designated as net investment hedge		—	—		6.0
Derivatives not designated as hedges					
Foreign Currency Contracts	Other current assets	1.8	—	Other current liabilities	2.7
Foreign Currency Contracts	Other assets	0.1	—	Other long-term liabilities	—
Total derivatives not designated as hedges		1.9	—		2.7
Total derivatives		\$ 1.9	\$ —		\$ 8.7

⁽¹⁾ Represents foreign exchange swaps and their respective locations on our consolidated balance sheet as of December 31, 2022: foreign exchange options.

Derivatives designated as net investment hedge	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Foreign Exchange Contracts ⁽¹⁾	Other assets	\$ —	Other long-term liabilities	\$ —

The following table represents the net effect derivative instruments designated in hedging relationships had on accumulated other comprehensive loss on the consolidated statements of income and comprehensive income:

		Unrealized gain recognized in accumulated other comprehensive loss on derivatives, net of taxes			
		Year Ended December 31,	Year Ended December 31,		
		Year Ended December 31,			
		Year Ended December 31,			
		Year Ended December 31,			
Derivatives designated as net investment hedge	Derivatives designated as net investment hedge	2022	2021	Derivatives designated as net investment hedge	
Foreign Exchange Contracts ⁽¹⁾ ⁽²⁾		\$ 5.2	\$ —		
Foreign Exchange Collar Contracts ⁽¹⁾ ⁽²⁾					

- (1) Our designated derivative instruments are highly effective. As such, there were no gains or losses recognized immediately in income related to hedge ineffectiveness during the years year ended December 31, 2022 or December 31, 2021 December 31, 2023.
- (2) Represents foreign exchange swaps and foreign exchange options.

The following table represents the effect that derivative instruments not designated as hedges had on net income:

		Year Ended December 31,	
		2023	2022
Derivatives not designated as hedges	Location of (gain) recognized in income		
Foreign Currency Contracts	Foreign currency (gain)	\$ (3.3)	\$ —

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The following table represents interest income, included within interest expense, net on the consolidated statements of income and comprehensive income related to amounts excluded from the assessment of hedge effectiveness for derivative instruments designated as net investment hedges:

		Amount of gain recognized in income on derivative (amount excluded from effectiveness testing)	
		Year Ended December 31,	Year Ended December 31,

		Year Ended December 31,		Year Ended December 31,		Year Ended December 31,			
Derivatives designated as net investment hedge	Derivatives designated as net investment hedge	2022	2021	Derivatives designated as net investment hedge		2023	2022		
Foreign Exchange Contracts ^{(1) (2)}		\$ 1.3	\$ —						
Foreign Exchange Collar Contracts ^{(1) (2)}									

⁽¹⁾ Represents amount excluded from effectiveness testing. Our Foreign Exchange Collar Contracts are designated with terms based on the spot rate of the euro. Future changes in the components related to the spot change on the notional will be recorded in other comprehensive income and remain there until the hedged subsidiaries are substantially liquidated. All coupon payments are classified in interest expense, net in the consolidated statements of income and comprehensive income, and the initial value of excluded components currently recorded in accumulated other comprehensive loss as a foreign currency translation adjustment are amortized to interest expense, net over the remaining term of the Foreign Exchange Contract.

⁽²⁾ Represents foreign exchange swaps and foreign exchange options.

NOTE 13 — Product Warranties

We provide product warranties with varying terms and durations for the majority of our products. We estimate our warranty reserve by considering historical and projected warranty claims, historical and projected cost-per-claim, and knowledge of specific product issues that are outside our typical experience. We record warranty expense in cost of sales in the consolidated statements of income and comprehensive income. Product warranty claims not expected to occur within one year are included as part of other long-term liabilities in the consolidated balance sheets.

The following table represents changes in our consolidated warranty reserve:

	Year Ended December 31,		
	2023	2022	2021
Beginning balance	\$ 4.1	\$ 10.5	\$ 11.9
Acquired warranty reserve	35.7	—	—
Accrued warranty expense	2.6	1.5	5.0
Warranty usage	(11.2)	(7.9)	(6.4)
Foreign exchange translation effect	0.6	—	—
Ending balance	\$ 31.8	\$ 4.1	\$ 10.5

NOTE 14 — Business Combinations

Howden Acquisition

On March 17, 2023, we completed the Howden Acquisition pursuant to the previously disclosed Equity Purchase Agreement dated as of November 9, 2022. The acquisition purchase price was \$4,387.4. We financed the purchase price for the Howden Acquisition with proceeds from borrowings under our Amended SSRCF, Amendment No. 3 Term Loan, common and preferred stock issuance and a private offering of Secured Notes and Unsecured Notes. See Note 10, "Debt and Credit Arrangements," for more information.

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

The following table represents shows the purchase price in accordance with ASC 805:

Description		
Cash consideration to seller	\$	2,788.3
Howden's debt settled at close		1,529.0
Settlement of seller transaction costs		67.2
Funds held in escrow		20.4
Working capital adjustment		(17.5)
Total ASC 805 purchase price	\$	4,387.4

Howden is a leading global provider of mission critical air and gas handling products providing service and support to customers around the world in highly diversified end markets and geographies. The combination of Chart and Howden is complementary and furthers our global leadership position in highly engineered process technologies and products serving the Nexus of Clean™ – clean power, clean water, clean food and clean industrials.

We estimated the preliminary fair value of acquired developed technology and trade names using the relief from royalty method. The preliminary fair values of acquired customer backlog and customer relationships were estimated using the multi-period excess earnings method. Under both the relief from royalty and multi-period excess earnings methods, the fair value models incorporated estimates of future cash flows, estimates of allocations of certain assets and cash flows, estimates of future growth rates, and management's judgment regarding the applicable discount rates to use to discount such estimates of cash flows.

The excess of the purchase price over the preliminary estimated fair values is assigned to goodwill. The preliminary estimated goodwill was established due to expected cost and commercial synergies, anticipated growth of new customers, and expansion of equipment portfolio and process technology offerings. Goodwill recorded for the Howden Acquisition is not expected to be deductible for tax purposes.

As additional information becomes available, we will further revise the preliminary acquisition consideration allocation during the remainder of the measurement period, which shall not exceed twelve months from the closing of the Howden Acquisition. Areas that are subject to change include evaluating income tax accounting considerations. We do not believe such revisions or changes will be material.

The preliminary estimated fair values of the assets acquired and liabilities assumed disclosed in this note are inclusive of businesses identified to be sold as of the acquisition date. On June 12, 2023, we signed a definitive agreement to divest our Roots business, which we acquired as part of the Howden Acquisition. We have categorized the assets and liabilities of these discontinued operations on separate lines in the table below. Please refer to Note 3, "Discontinued Operations and Other Businesses Sold."

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The following table summarizes the preliminary estimated fair values of the assets acquired and liabilities assumed in the Howden Acquisition as of the acquisition date:

	Preliminary Estimated Fair Value
Net assets acquired:	
Cash and cash equivalents	\$ 62.5
Restricted cash	2.6
Accounts receivable	427.5
Inventories	260.0
Unbilled contract revenue	168.1
Prepaid expenses	51.9
Other current assets	103.3
Assets held for sale	225.7
Property, plant and equipment	325.1
Identifiable intangible assets	2,434.5
Equity method investments	12.0
Other assets	117.8
Accounts payable	(373.2)
Customer advances and billings in excess of contract revenue	(233.2)
Accrued salaries, wages and benefits	(103.0)
Accrued income taxes	(28.5)
Current portion of warranty reserve	(34.3)
Current portion of long-term debt ⁽¹⁾	(1.4)
Other current liabilities	(141.2)
Liabilities held for sale	(43.9)
Long-term deferred tax liabilities	(671.8)
Operating lease liabilities	(52.3)
Finance lease liabilities	(8.1)
Accrued pension liabilities	(6.0)
Other long-term liabilities	(45.7)
Total identifiable net assets assumed	2,448.4
Noncontrolling interest ⁽²⁾	(146.3)
Goodwill ⁽³⁾	2,085.3
Net assets acquired	\$ 4,387.4
Assets acquired net of cash, cash equivalents and restricted cash	\$ 4,322.3

⁽¹⁾ Represents the balance related to short term debt held in Other Debt Facilities. Refer to Note 10, "Debt and Credit Arrangements."

⁽²⁾ As part of the Howden Acquisition, we acquired a noncontrolling interest which owns 82% of Howden Hua Engineering Co., Ltd, an entity based in China which is valued at \$146.0.

⁽³⁾ Includes \$102.2 and \$49.7 allocated to the Roots and American Fan divestitures, respectively.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The following table summarizes information regarding preliminary identifiable assets acquired in the Howden Acquisition:

	Estimated Useful Lives	Preliminary Estimated Asset Fair Value
Finite-lived intangible assets acquired:		
Customer relationships	18 years	\$ 1,533.0
Backlog	3 years	135.0
Technology	5 to 14 years	296.0
Total finite-lived intangible assets acquired		\$ 1,964.0
Indefinite-lived intangible assets acquired:		
Trade names		470.5
Total intangible assets acquired		\$ 2,434.5

Chart's consolidated warranty reserve; financial statements include Howden's sales and operating income of \$1,537.9 and \$188.5, respectively, from date the of acquisition through December 31, 2023. We incurred \$4.9 and \$25.4 in transaction related costs during the fourth quarter of 2022 and the first quarter of 2023, respectively, related to the Howden Acquisition which were recorded in selling, general and administrative expenses on the consolidated statements of income and comprehensive income. No interest expense is allocated to Howden's net income for our period of ownership.

	Year Ended December 31,		
	2022	2021	2020
Beginning balance	\$ 10.5	\$ 11.9	\$ 11.5
Issued – warranty expense	1.5	5.0	6.6
Warranty usage	(7.9)	(6.4)	(6.2)
Ending balance	\$ 4.1	\$ 10.5	\$ 11.9

As part of the Howden Acquisition, we acquired defined benefit pension plans, which are predominately in Germany. As a result, we assumed pension assets of \$38.7 and pension liabilities of \$41.1, a net \$2.4 liability.

Unaudited Supplemental Pro Forma Information

NOTE 14 — Business Combinations The following unaudited pro forma combined financial information for the years ended December 31, 2023, 2022 and 2021 gives effect to the Howden Acquisition and the Roots and American Fan divestitures, as if both occurred on January 1, 2021. The unaudited pro forma information is not necessarily indicative of the results of operations that actually would have occurred under the ownership and management of the Company. In addition, the unaudited pro forma information is not intended to be a projection of future results and does not reflect any operating efficiencies or cost savings that might be achievable.

The following adjustments are reflected in the unaudited pro forma financial table below:

- the effect of increased interest expense related to the repayment of the Howden term loans, senior notes and revolving credit facility net of the additional borrowing on the Chart senior secured revolving credit facility and senior secured and unsecured notes,
- amortization of acquired intangible assets,
- an adjustment to reflect the change in the estimated income tax rate for federal and state purposes,
- nonrecurring acquisition-related expenses incurred by Howden prior to the close of and directly attributable to the Howden Acquisition were adjusted out of the pro forma net loss attributable to Chart Industries, Inc. from continuing operations for the periods presented, and
- nonrecurring acquisition-related expenses incurred by Chart and directly related to the Howden Acquisition were adjusted out of the pro forma net loss attributable to Chart Industries, Inc. from continuing operations for the periods presented.

	Year Ended December 31,		
	2023	2022	2021
Pro forma sales from continuing operations	\$ 3,657.7	\$ 3,314.6	\$ 2,893.8
Pro forma net loss attributable to Chart Industries, Inc. from continuing operations	6.1	164.0	171.8

Fronti Fabrications, Inc. Acquisition

On May 31, 2022, we acquired 100% of the equity interests of Fronti Fabrications, Inc. ("Fronti") for \$20.6 in cash or \$20.4 net of \$0.2 cash acquired. Fronti is a specialist in engineering, machining and welding for the cryogenic and gas

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

industries, and also supplies new build pressure vessels and cold boxes, and performs repairs with certification to American Society of Mechanical Engineers (ASME) code. The preliminary estimated fair value of the total net assets acquired includes goodwill, identifiable intangible assets and other net assets at the date of acquisition in the amounts of

\$14.4, \$5.3 and \$0.9, respectively (as previously reported \$14.3, \$5.3 and \$1.0, respectively. Goodwill respectively). The purchase price allocation and intangible assets recorded for all required purchase accounting adjustments were finalized in the Fronti acquisition are expected to be deductible for tax purposes. second quarter of 2023.

CSC Cryogenic Service Center AB Acquisition

On May 16, 2022, we acquired 100% of the equity interests of CSC Cryogenic Service Center AB ("CSC") for approximately \$3.8 in cash. The preliminary estimated fair value of the total net assets acquired include goodwill and other net assets at the date of acquisition in the amounts of \$3.1 and \$0.7. Goodwill recorded for the CSC acquisition is not expected cash (subject to be deductible for tax purposes. certain customary adjustments). CSC brings a strong service footprint in the Nordic region with many overlapping customers to Chart, allowing us to broaden our service and repair presence geographically. The purchase price allocation and all required purchase accounting adjustments were finalized in the second quarter of 2023.

Earthly Labs Inc. Acquisition

On December 14, 2021 As defined in Note 2, "Significant Accounting Policies", we preliminarily allocated the acquisition consideration to tangible and identifiable intangible assets acquired the remaining 85% of Earthly Labs, Inc. ("Earthly Labs"). The acquisition was completed for cash and stock for a previously disclosed purchase price of \$63.1. During the first quarter of 2022, we adjusted the value liabilities assumed based on their preliminary estimated fair values as of the stock consideration to reflect a common stock price of \$160.63 per share, which lowered the purchase price to \$61.9 or \$58.4 net of \$3.5 cash acquired. In connection with the Earthly Labs acquisition Chart shall pay to the sellers a royalty on sales of a carbon capture unit for residential use launched for sale to the public by Chart, which has not yet been developed. Refer to the "Contingent Consideration" section below for further discussion. Earthly Labs is a leading provider of small-scale carbon capture systems offering an affordable, small footprint technology platform called "CiCi ®" to capture, recycle, reuse, track and sell CO2. Earthly Labs' proprietary approach includes hardware, software and services to address existing carbon dioxide emissions from industrial sources while converting molecules to value.

date. The preliminary fair value of the total net assets acquired includes goodwill, tangible and identifiable intangible assets was determined based on inputs that are unobservable and other net liabilities significant to the overall fair value measurement. The preliminary fair value is based on estimates and assumptions made by management at the date of acquisition in the amounts of \$34.3, \$45.5 and \$9.8, respectively (as previously reported: \$47.2, \$27.0 and \$11.1, respectively). Amounts previously reported were preliminary and based on provisional fair values. During 2022, we received and analyzed new information about certain assets acquired and subsequently adjusted their fair values accordingly. Intangible assets consists of unpatented technology, trade names, customer relationships and backlog. Goodwill and intangible assets recorded for the Earthly Labs acquisition are not expected to be deductible for tax purposes. During the fourth quarter of 2022 the Earthly Labs purchase price allocation was finalized.

AdEdge Acquisition

On August 27, 2021, we acquired 100% time of the equity interests of AdEdge Holdings, LLC ("AdEdge") for \$37.5 in cash, net of \$1.4 of cash acquired and a final net working capital adjustment of \$0.8 finalized during acquisition. As such, the first quarter of 2022. AdEdge is a water treatment technology and solution provider specializing in the design, development, fabrication and supply of water treatment solutions, specialty medias, legacy and innovative technologies that remove a wide range of contaminants from water. The acquisitions are classified as Level 3 fair value of the total net assets acquired includes goodwill, identifiable intangible assets hierarchy measurements and other net assets at the date of acquisition in the amounts of \$16.4, \$19.0 and \$3.5, respectively. During 2022, we increased goodwill by \$0.5.

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

which mainly included the \$0.8 final net working capital adjustment mentioned above, a retention bonus adjustment and an adjustment to the trade name. Goodwill and intangible assets recorded for the AdEdge acquisition are expected to be deductible for tax purposes. During the third quarter of 2022 the AdEdge purchase price allocation was finalized.

As discussed in Note 6, "Investments," we previously held a 50% ownership interest in a joint venture in AdEdge India. On May 4, 2022, we acquired the remaining 50% of the shares for \$0.4 in cash (subject to certain customary adjustments) or \$0.3 net of \$0.1 cash acquired. AdEdge India focuses on water and wastewater treatment and surface water bodies rejuvenation in the South Asian markets.

L.A. Turbine Acquisition

On July 1, 2021, we acquired 100% of the equity interests of L.A. Turbine ("LAT") for approximately \$76.6 in cash (subject to certain customary adjustments), net of \$1.4 of cash acquired. LAT is a global leader in turboexpander design, engineering, manufacturing, assembly and testing process for new and aftermarket equipment, with significant in-house engineering expertise.

The estimated useful lives of identifiable finite-lived intangible assets range from less than one year to 15 years. The excess of the purchase price over the fair values is assigned to goodwill. LAT complements our Heat Transfer Systems and Specialty Products segments with the addition of its application-specific, highly engineered turboexpanders which further differentiates Chart's end market diversity especially in hydrogen and helium liquefaction in addition to industrial gas, natural gas processing, power generation and petrochemical applications. Goodwill was established due to the benefits outlined above, as well as the benefits derived from the synergies of LAT integrating with our Heat Transfer Systems, Specialty Products and Repair, Service & Leasing segments. Goodwill recorded for the LAT acquisition is not expected to be deductible for tax purposes. During the third quarter of 2022 the LAT purchase price allocation was finalized.

The following table summarizes the fair value of the assets acquired in the L.A. Turbine acquisition at the acquisition date:

Net assets acquired:		
Identifiable intangible assets	\$	43.7
Goodwill ⁽¹⁾		42.3
Other assets ⁽¹⁾		4.2
Property, plant and equipment		2.6
Cash and cash equivalents		1.4
Liabilities ⁽¹⁾		(16.2)
Net assets acquired	\$	78.0

⁽¹⁾ As previously reported in our Annual Report on Form 10-K for the year ended December 31, 2021, we reported goodwill, other assets and liabilities of \$42.1, \$4.6 and \$16.4, respectively. During 2022, we recorded purchase price adjustments that increased goodwill by \$0.2, decreased other assets by \$0.4 and decreased liabilities by \$0.2.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Information regarding identifiable intangible assets acquired in the LAT acquisition is presented below:

	Weighted-average Estimated	
	Useful Life	Fair Value
Finite-lived intangible assets acquired:		
Unpatented technology	14.5 years	\$ 33.4
Customer relationships	14.5 years	1.5
Backlog	2.5 years	0.7
Other identifiable intangible assets ⁽¹⁾	3.4 years	0.2
Total finite-lived intangible assets acquired	14.2 years	35.8
Indefinite-lived intangible assets acquired:		
Trademarks and trade names		7.9
Total intangible assets acquired		\$ 43.7

⁽¹⁾ Other identifiable intangible assets is included in "Patents and other" in Note 9, "Goodwill and Intangible Assets."

Cryogenic Gas Technologies, Inc. Acquisition

On February 16, 2021, we acquired 100% of the equity interests of Cryogenic Gas Technologies, Inc. ("Cryo Technologies") for approximately \$55.0 in cash (subject to certain customary adjustments), net of \$0.6 cash acquired. Cryo Technologies is a global leader in custom engineered process systems to separate, purify, refrigerate, liquefy and distribute high value industrial gases such as hydrogen, helium, argon and hydrocarbons with design capabilities for cold boxes for hydrogen and helium use. The distribution systems Cryo Technologies supplies are located within the helium and hydrogen liquefaction facilities and are inclusive of trailer loading systems, which facilitates the first step in product distribution. The fair value of the total net assets acquired includes goodwill, identifiable intangible assets and other net assets at the date of acquisition in the amounts of \$34.9, \$19.5 and \$1.2, respectively. Intangible assets consists of customer relationships, unpatented technology, trademarks and trade names, backlog and non-compete agreements. Goodwill and intangible assets recorded for the Cryo Technologies acquisition are expected to be deductible for tax purposes. During the first quarter of 2022, the Cryo Technologies purchase price allocation was finalized.

Preliminary Purchase Price Allocations

The purchase price allocations of Fronti and CSC are preliminary and are based on provisional fair values and subject to revision as we finalize third-party valuations and other analyses. Final determination of the fair values may result in further adjustments to the value of net assets acquired. [disclosures](#).

Contingent Consideration

The estimated fair value of contingent consideration was \$16.9 for our Sustainable Energy Solutions, Inc. business ("SES") SES and \$3.2 for our BlueInGreen, LLC business ("BIG") BIG at the date of acquisitions and was valued according to a discounted cash flow approach, which included assumptions regarding the probability of achieving certain targets and a discount rate applied to the potential payments.

Potential payments for SES, which range between \$0.0 and \$12.5, are measured between the period commencing January 1, 2023 January 1, 2024 and ending on December 31, 2028 based on the attainment of certain earnings targets. The potential payments related earn-out period for BIG ended December 31, 2022, and we disbursed payment during the second quarter of 2023.

In connection with the Howden Acquisition, Chart assumed a deferred consideration liability of \$1.2 and an earn-out provision of \$1.7, in relation to both SES Howden's acquisition of Maintenance Partners NV ("MP") on April 30, 2021. The earn-out period for MP ended April 30, 2023, and BIG we disbursed payment during the third quarter of 2023.

Valuations are performed using Level 3 inputs as defined in Note 2, "Significant Accounting Policies" of our Annual Report on Form 10-K for the year ended December 31, 2023 and are evaluated on a quarterly basis based on forecasted sales and earnings targets. Contingent consideration liabilities are classified as other current liabilities and other long-term liabilities in the consolidated balance sheets. Changes in fair value of contingent consideration, on a combined basis is between \$0.0 including accretion, are recorded as selling, general, and \$31.0, administrative expenses in the consolidated statements of income and comprehensive income.

The following table represents the changes to our contingent consideration liabilities:

	SES	BIG	MP	Total
Balance at December 31, 2022	\$ 16.3	\$ 1.0	\$ —	\$ 17.3
(Decrease) increase in fair value of contingent consideration liabilities ^{(1) (2)}	(9.2)	0.7	(0.2)	(8.7)
Acquired contingent consideration liabilities	—	—	2.9	2.9
Payment of contingent consideration	—	(1.7)	(2.7)	(4.4)
Balance at December 31, 2023	\$ 7.1	\$ —	\$ —	\$ 7.1

(1) For the year ended December 31, 2022 December 31, 2023, the estimated fair value of contingent consideration related to SES decreased by \$9.2 (decreased by \$2.8 while for the estimated year ended December 31, 2022 and increased by \$2.2 for the year ended December 31, 2021). On December 31, 2023, the measurement period for technical milestones tranche of the SES earn-out, with potential payments that ranged from \$0.0 to \$12.5, was not met and resulted in a reduction of the fair value of contingent consideration during 2023.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

(2) For the year ended December 31, 2023, the fair value of contingent consideration related to BIG decreased by \$1.1. For the year ended December 31, 2021, the estimated fair value of contingent consideration related to SES increased by \$2.2 while \$0.7 (decreased by \$1.1 during both the estimated fair value of contingent consideration related to BIG decreased by \$1.1, years ended December 31, 2022 and 2021).

In connection with the Earthly Labs acquisition, Chart shall will pay to the sellers a royalty on sales of a carbon capture unit units for residential use launched for sale to the public by Chart in an amount equal to 4% of such sales. Potential royalty payments shall be paid to the sellers during the three year period following Chart's launch of this product. This product has not yet been developed and as such, the fair value of the contingent consideration liability that arises from this arrangement was insignificant as of both December 31, 2022 December 31, 2023 and 2021.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Valuations are performed using Level 3 inputs as defined in Note 2, "Significant Accounting Policies" and are evaluated on a quarterly basis based on forecasted sales and earnings targets. Contingent consideration liabilities are classified as other current liabilities and other long-term liabilities in the consolidated balance sheets. Changes in the fair value of contingent consideration liabilities, including accretion, are recorded as selling, general and administrative expenses in the consolidated statements of income and comprehensive income. No cash consideration was transferred for contingent consideration as of the acquisition dates and as such, the arrangements represent a noncash investing activity in the statement of cash flows for the years ended December 31, 2022 and 2021.

The following table represents the changes to our contingent consideration liabilities:

	SES	BIG	Total
Balance at December 31, 2021	\$ 19.1	\$ 2.1	\$ 21.2
Decrease in fair value of contingent consideration liabilities	(2.8)	(1.1)	(3.9)
Balance at December 31, 2022	\$ 16.3	\$ 1.0	\$ 17.3

2022.

NOTE 15 — Accumulated Other Comprehensive Income (Loss) Income

Accumulated Other Comprehensive Income (Loss) Income

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

	December 31, 2022		
	Foreign currency translation adjustments ⁽¹⁾	Pension liability adjustments, net of taxes	Accumulated other comprehensive (loss) income

Beginning Balance	\$	(15.2)	\$	(6.5)	\$	(21.7)
Other comprehensive loss		(35.3)		(1.5)		(36.8)
Amounts reclassified from accumulated other comprehensive (loss) income, net of income taxes		—		0.5		0.5
Net current-period other comprehensive (loss) income, net of taxes		(35.3)		(1.0)		(36.3)
Ending Balance	\$	(50.5)	\$	(7.5)	\$	(58.0)

	December 31, 2023		
	Foreign currency translation adjustments ⁽¹⁾	Pension liability adjustments, net of taxes	Accumulated other comprehensive income (loss)
Beginning Balance	\$ (50.5)	\$ (7.5)	\$ (58.0)
Other comprehensive income	63.7	4.2	67.9
Amounts reclassified from accumulated other comprehensive income (loss), net of income taxes	—	0.9	0.9
Net current-period other comprehensive income, net of taxes	63.7	5.1	68.8
Ending Balance	\$ 13.2	\$ (2.4)	\$ 10.8

	December 31, 2021		
	Foreign currency translation adjustments	Pension liability adjustments, net of taxes	Accumulated other comprehensive income (loss)
Beginning Balance	\$ 13.8	\$ (11.4)	\$ 2.4
Other comprehensive (loss) income	(29.0)	3.9	(25.1)
Amounts reclassified from accumulated other comprehensive (loss) income, net of income taxes	—	1.0	1.0
Net current-period other comprehensive (loss) income, net of taxes	(29.0)	4.9	(24.1)
Ending Balance	\$ (15.2)	\$ (6.5)	\$ (21.7)

	December 31, 2022		
	Foreign currency translation adjustments	Pension liability adjustments, net of taxes	Accumulated other comprehensive income (loss)
Beginning Balance	\$ (15.2)	\$ (6.5)	\$ (21.7)
Other comprehensive loss	(35.3)	(1.5)	(36.8)
Amounts reclassified from accumulated other comprehensive income (loss), net of income taxes	—	0.5	0.5
Net current-period other comprehensive loss, net of taxes	(35.3)	(1.0)	(36.3)
Ending Balance	\$ (50.5)	\$ (7.5)	\$ (58.0)

⁽¹⁾ Foreign currency translation adjustments includes translation adjustments and net investment hedge, net of taxes. See Note 12, "Financial Instruments and Derivative Financial Instruments," for further information related to the net investment hedge.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

NOTE 16 — Earnings Per Share

The following table presents calculations of net income per share of common stock:

Year Ended December 31,	Year Ended December 31,
-------------------------	-------------------------

		2022	2021	2020	2023	2022	2021
Amounts attributable to Chart common stockholders	Amounts attributable to Chart common stockholders						
Income from continuing operations	Income from continuing operations	\$81.6	\$59.1	\$ 68.9			
	Income from continuing operations						
	Income from continuing operations						
Less: Mandatory convertible preferred stock dividend requirement	Less: Mandatory convertible preferred stock dividend requirement	1.4	—	—			
Income from continuing operations attributable to Chart	Income from continuing operations attributable to Chart	80.2	59.1	68.9			
(Loss) income from discontinued operations, net of tax	(Loss) income from discontinued operations, net of tax	(57.6)	—	239.2			
	Loss from discontinued operations, net of tax						
Net income attributable to Chart common stockholders	Net income attributable to Chart common stockholders	\$22.6	\$59.1	\$308.1			
Earnings per common share – basic:	Earnings per common share – basic:						
Income from continuing operations	Income from continuing operations	\$2.21	\$1.66	\$ 1.95			
(Loss) income from discontinued operations	(Loss) income from discontinued operations	(1.59)	—	6.76			
	Income from continuing operations						
	Income from continuing operations						
	Loss from discontinued operations						
Net income attributable to Chart Industries, Inc.	Net income attributable to Chart Industries, Inc.	\$0.62	\$1.66	\$ 8.71			
Earnings per common share – diluted:	Earnings per common share – diluted:						
Earnings per common share – diluted:	Earnings per common share – diluted:						

Earnings per common share – diluted:				
Income from continuing operations	Income from continuing operations	\$1.92	\$1.44	\$ 1.89
(Loss) income from discontinued operations		(1.38)	—	6.56
Income from continuing operations				
Income from continuing operations				
Loss from discontinued operations				
Net income attributable to Chart Industries, Inc.	Net income attributable to Chart Industries, Inc.	\$0.54	\$1.44	\$ 8.45
Weighted average number of common shares outstanding – basic				
Weighted average number of common shares outstanding – basic				
Weighted average number of common shares outstanding – basic	Weighted average number of common shares outstanding – basic	36.25	35.61	35.38
Incremental shares issuable upon assumed conversion and exercise of share-based awards	Incremental shares issuable upon assumed conversion and exercise of share-based awards	0.26	0.34	0.26
Incremental shares issuable due to dilutive effect of the convertible notes	Incremental shares issuable due to dilutive effect of the convertible notes	2.81	2.76	0.53
Incremental shares issuable due to dilutive effect of warrants	Incremental shares issuable due to dilutive effect of warrants	2.47	2.40	0.28
Incremental shares issuable due to dilutive effect of the underwriters common shares option	Incremental shares issuable due to dilutive effect of the underwriters common shares option	0.01	—	—

Weighted average number of common shares outstanding – diluted	Weighted average number of common shares outstanding – diluted	41.80	41.11	36.45
--	--	-------	-------	-------

Diluted earnings per share does not consider the following cumulative preferred stock dividends and potential common shares as the effect would be anti-dilutive:

		Year Ended December 31,			Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
Numerator	Numerator						
Mandatory convertible preferred stock dividend requirement (1)	Mandatory convertible preferred stock dividend requirement (1)	\$1.4	\$ —	\$ —			
	Mandatory convertible preferred stock dividend requirement (1)						
	Mandatory convertible preferred stock dividend requirement (1)						
Denominator	Denominator						
Anti-dilutive shares, Share-based awards	Anti-dilutive shares, Share-based awards	0.06	0.03	0.27			
	Anti-dilutive shares, Share-based awards						
	Anti-dilutive shares, Share-based awards						
	Anti-dilutive shares, Convertible note hedge and capped call transactions (2)						
	Anti-dilutive shares, Convertible note hedge and capped call transactions (2)						
Anti-dilutive shares, Convertible note hedge and capped call transactions (2)	Anti-dilutive shares, Convertible note hedge and capped call transactions (2)	2.81	2.76	0.53			
	Anti-dilutive shares, Convertible note hedge and capped call transactions (2)						
Anti-dilutive shares, Mandatory convertible preferred stock (1)	Anti-dilutive shares, Mandatory convertible preferred stock (1)	0.17	—	—			
	Anti-dilutive shares, Mandatory convertible preferred stock (1)						

Anti-dilutive shares, Mandatory convertible preferred stock ⁽¹⁾				
Total anti-dilutive securities	Total anti-dilutive securities	3.04	2.79	0.80

- (1) We calculate the basic and diluted earnings per share based on net income, which approximates income available to common shareholders for each period. Earnings per share is calculated using the two-class method, which is an earnings allocation formula that determines the earnings per share for common stock and any participating securities according to dividends declared (whether paid or unpaid) and participation rights in undistributed earnings. The Series B Mandatory Convertible Preferred Stock and the 2024 Convertible Notes are participating securities. Undistributed earnings are not allocated to the participating securities because the participation features are discretionary. Net losses are not allocated to

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

the Series B Mandatory Convertible Preferred Stock, as it does not have a contractual obligation to share in the losses of Chart. Basic net income per share is computed by dividing net income available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted net income per common share is computed by dividing net income available to common shareholders by the sum of the weighted average number of common shares outstanding and any dilutive non-participating securities for the period.

- (2) The convertible note hedge offsets any dilution upon actual conversion of the 2024 Notes up to a common stock price of \$71.775 per share. For further information, refer to Note 10, "Debt and Credit Arrangements."

NOTE 17 — Income Taxes

Income from Continuing Operations Before Income Taxes

Income from continuing operations before income taxes consists of the following:

		Year Ended December 31,			For the Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
United States	United States	\$31.1	\$25.9	\$48.0			
Foreign	Foreign	67.8	48.2	37.2			
Income from continuing operations before income taxes	Income from continuing operations before income taxes	\$98.9	\$74.1	\$85.2			

Provision

Significant components of income tax expense (benefit), net are as follows:

		Year Ended December 31,			For the Year Ended December 31,		
		2022	2021	2020	2023	2022	2021
Current:	Current:						
Federal	Federal						
Federal	Federal	\$(1.3)	\$ 1.7	\$(0.2)			
State and local	State and local	3.5	3.2	1.9			
Foreign	Foreign	15.4	16.5	12.2			
Total current	Total current	17.6	21.4	13.9			

Deferred:	Deferred:			
Federal	Federal	(5.6)	(5.8)	7.5
Federal				
Federal				
State and local	State and local	1.9	1.1	(2.9)
Foreign	Foreign	2.0	(3.2)	(3.6)
Total deferred	Total deferred	(1.7)	(7.9)	1.0
Total income tax expense, net	Total income tax expense, net	\$15.9	\$13.5	\$14.9

See Note 3, "Discontinued Operations and Other Businesses Sold" for the income (loss) from discontinued operations and related income taxes.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Effective Tax Rate Reconciliation

The reconciliation of income taxes computed at the U.S. federal statutory tax rate to income tax expense is as follows:

	Year Ended December 31,		
	2022	2021	2020
Income tax expense at U.S. statutory rate	\$ 20.8	\$ 15.6	\$ 17.9
State income taxes, net of federal tax benefit	1.5	3.1	(0.9)
U.S. taxation of international operations	1.4	1.3	(0.2)
Effective tax rate differential of earnings outside of U.S.	1.9	1.8	2.4
Change in valuation allowance	(11.6)	(5.9)	(4.2)
Research & experimentation	(2.9)	(1.0)	(1.0)
Provision to return	5.0	0.3	(0.1)
Net non-deductible items	0.4	2.4	1.2
Change in uncertain tax positions	(0.3)	(0.2)	(0.6)
Share-based compensation	(1.1)	(4.1)	(1.7)
Tax effect of 2017 tax reform federal rate change	—	—	(0.2)
Other items	0.8	0.2	2.3
Income tax expense	\$ 15.9	\$ 13.5	\$ 14.9

	Year Ended December 31,		
	2023	2022	2021
Income tax expense at U.S. statutory rate	\$ 12.2	\$ 20.8	\$ 15.6
State income taxes, net of federal tax benefit	3.1	1.5	3.1
Foreign withholding taxes	6.3	0.2	1.6
U.S. taxation of international operations	18.7	1.4	(0.3)
Effective tax rate differential of earnings outside of United States	2.8	1.7	1.8
Change in valuation allowance	(2.0)	(11.6)	(5.9)
Research & experimentation	(2.0)	(2.9)	(1.0)
Provision to return	0.8	5.0	0.3
Non-deductible items	0.1	0.4	2.4
Change in uncertain tax positions	2.0	(0.3)	(0.2)
Share-based compensation	0.1	(1.1)	(4.1)

Capital (loss)	(40.5)	—	—
Unremitted earnings not permanently reinvested	0.9	—	—
Other items	0.5	0.8	0.2
Income tax expense	\$ 3.0	\$ 15.9	\$ 13.5

We reorganized the reclassified certain line items of the effective tax rate reconciliation for year ended December 31, 2020 December 31, 2021 and December 31, 2021 December 31, 2022 to correspond with the year ended December 31, 2022 December 31, 2023.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Deferred Taxes

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to reverse. Significant components of our deferred tax assets and liabilities are as follows:

	December 31,	
	2022	2021
Deferred tax assets ("DTA"):		
Accruals and reserves	\$ 5.1	\$ 13.7
Loss contingency	70.3	3.1
Pensions	0.2	0.5
Inventory	78.1	42.3
Share-based compensation	2.3	4.5
R&D Amortization	7.4	3.6
Tax credit carryforwards	8.2	14.1
Interest limitation carryover	5.5	2.4
Foreign net operating loss carryforwards	8.7	16.3
State net operating loss carryforwards	2.1	2.3
Convertible notes	4.3	6.3
Property, plant and equipment – net DTA	5.2	7.5
Other – net DTA	2.9	12.4
Total deferred tax assets before valuation allowances	200.3	129.0
Valuation allowances	(5.4)	(21.6)
Total deferred tax assets, net of valuation allowances	\$ 194.9	\$ 107.4
Deferred tax liabilities ("DTL"):		
Property, plant and equipment – net DTL	\$ 26.0	\$ 37.9
Goodwill and intangible assets	77.0	82.2
Insurance receivable	53.5	3.1
Other – net DTL	3.1	0.6
Investments	4.5	3.8
Deferred revenue	72.0	37.9
Total deferred tax liabilities	\$ 236.1	\$ 165.5
Net deferred tax liabilities	\$ 41.2	\$ 58.1
The net deferred tax liability is classified as follows:		
Other assets	\$ (4.9)	\$ (1.7)
Long-term deferred tax liabilities	46.1	59.8
Net deferred tax liabilities	\$ 41.2	\$ 58.1

As of December 31, 2022, we have \$94.6 of state and foreign net operating losses, of which approximately \$14.3 expire between 2022 and 2030.

	December 31,	
	2023	2022

Deferred tax assets ("DTA"):		
Accruals and reserves	\$ 48.2	\$ 5.1
Loss contingency	0.5	70.3
Pensions	—	0.2
Inventory	127.0	78.1
Share-based compensation	2.6	2.3
R&D Amortization	18.1	7.4
Tax credit carryforwards	2.6	8.2
Interest limitation carryover	126.8	5.5
Foreign net operating loss carryforwards	36.0	8.7
State net operating loss carryforwards	4.2	2.1
Convertible notes	2.2	4.3
Property, plant and equipment – net DTA	4.4	5.2
Other – net DTA	2.2	2.9
Total deferred tax assets before valuation allowances	374.8	200.3
Valuation allowances	(90.3)	(5.4)
Total deferred tax assets, net of valuation allowances	\$ 284.5	\$ 194.9
Deferred tax liabilities ("DTL"):		
Property, plant and equipment – net DTL	\$ 58.6	\$ 26.0
Goodwill and intangible assets	629.0	77.0
Pensions	6.4	—
Insurance receivable	—	53.5
Unremitted earnings (APB23)	19.7	—
Other – net DTL	0.6	3.1
Investments	2.3	4.5
Deferred revenue	123.5	72.0
Total deferred tax liabilities	\$ 840.1	\$ 236.1
Net deferred tax liabilities	\$ 555.6	\$ 41.2
The net deferred tax liability is classified as follows:		
Other assets	\$ (12.6)	\$ (4.9)
Long-term deferred tax liabilities	568.2	46.1
Net deferred tax liabilities	\$ 555.6	\$ 41.2

We routinely review valuation allowances recorded against evaluate the recoverability of our deferred tax assets on a jurisdictional basis by considering whether deferred tax assets will be realized on a more likely than not basis as to whether we have basis. To the ability to realize extent a portion or all of the applicable deferred tax assets, assets do not meet the more likely than not threshold, a valuation allowance is recorded. As of December 31, 2022 December 31, 2023, we have valuation allowances totaling \$5.4 \$90.3 consisting primarily of our operations in Italy the United Kingdom, France, and China, Belgium.

We have U.S. state net operating loss carryforwards of \$138.7 that may be carried forward indefinitely. As of December 31, 2023, we had \$145.6 foreign net operating loss carryforwards primarily in Belgium, France, and India subject to

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

local tax limitations. The foreign net operating losses can be carried forward indefinitely, except in applicable jurisdictions that make up less than 12% of available net operating losses. We have tax credit carryforwards of \$2.6.

Other Tax Information

We previously considered the earnings in our non-U.S. subsidiaries to be indefinitely reinvested and, accordingly, recorded no deferred income taxes. We As a result of the Howden Acquisition during 2023, we have analyzed reevaluated our global working capital and cash requirements as of December 31, 2022 indefinite reinvestment assertion and have determined that we are partially reinvested. We are not permanently reinvested on \$247.9 of the undistributed earnings of our foreign subsidiaries. The remaining earnings continue to be indefinitely reinvested outside the United States. We have assessed a total deferred tax liability of \$19.7 as of December 31, 2023 on such earnings that have not been indefinitely reinvested. This is an increase of \$19.7 as compared to the deferred tax liability as of December 31, 2022. We have made no provision for U.S. income taxes or additional non-U.S. taxes on certain undistributed earnings of non-U.S. subsidiaries. These earnings could become subject to additional tax if we were to dividend those earnings or sell our interest in the non-U.S. subsidiary. We cannot practically determine the amount of additional taxes that might be payable on those earnings.

The Organization for Economic Co-operation and Development (OECD) has a framework to implement a global minimum corporate tax of 15% for companies with global revenues and profits above certain thresholds (referred to as Pillar 2), with certain aspects of Pillar 2 effective January 1, 2024, and other aspects effective January 1, 2025. While it is uncertain whether the United States will enact legislation to adopt Pillar 2, certain countries in which we operate have adopted legislation, and other countries are in the process of introducing legislation to implement Pillar 2. We do not plan expect Pillar 2 to repatriate any earnings have a material impact on our effective tax rate or our consolidated results of operation, financial position, and cash flows.

Cash paid for income taxes during the years ended December 31, 2023, 2022, and 2021 was \$49.7, \$27.0, and \$57.2, respectively.

Unrecognized Income Tax Benefits

We record a liability for unrecognized income tax benefits for the amount of benefit included in our previously filed income tax returns and in our financial results expected to be included in income tax returns to be filed for periods through the date of our Consolidated financial statements for income tax positions for which it is not more likely than not to be sustained upon examination by the respective tax authority.

The reconciliation of beginning to ending gross unrecognized tax benefits is as follows:

	Year Ended December 31,		
	2023	2022	2021
Unrecognized tax benefits at beginning of the year	\$ 0.7	\$ 1.7	\$ 1.9
Additions for tax positions acquired during the current period	34.4	—	—
Additions (reductions) for tax positions taken during the prior period	3.7	—	0.4
Reductions relating to settlements with taxing authorities	(1.6)	(0.3)	—
Lapse of statutes of limitation	(0.2)	(0.7)	(0.6)
Unrecognized tax benefits at end of the year	\$ 37.0	\$ 0.7	\$ 1.7

We are routinely examined by tax authorities around the world. Tax examinations remain in process in multiple countries including but not limited to Denmark, France, Germany and India. We file numerous group and separate returns in U.S. federal and state jurisdictions as well as international jurisdictions. We are subject to income taxes in the U.S federal jurisdiction and various state and foreign jurisdictions. In the United States, tax years dating back to 2020 remain subject to examination. With some exceptions, other major tax jurisdictions generally are not subject to examinations for years beginning before 2009.

Included in the balance of unrecognized tax benefits at this time. December 31, 2023 and 2022 was \$35.8 and \$0.5, respectively of income tax (benefit)/expenses, which, if ultimately recognized, would impact our annual effective tax rate.

We recognize interest accrued related to unrecognized tax benefits and penalties as income tax expense. We accrued approximately \$0.9 and \$0.1 of interest and penalties at December 31, 2023 and 2022, respectively. We recognized a liability related to interest and penalties on unrecognized tax benefits of \$7.0 as of December 31, 2023, primarily related to tax positions acquired in the Howden Acquisition. The amount of interest and penalties related to years prior to 2023 is immaterial. Due to

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

Cash paid for income taxes during the years ended December 31, 2022, 2021 and 2020 was \$27.0, \$57.2, and \$12.5, respectively.

Unrecognized Income Tax Benefits

The reconciliation of beginning to ending unrecognized tax benefits is as follows:

	Year Ended December 31,		
	2022	2021	2020
Unrecognized tax benefits at beginning of the year	\$ 1.7	\$ 1.9	\$ 2.4
Additions (reductions) for tax positions taken during the prior period	—	0.4	(0.6)
Additions for tax positions taken during the current period	—	—	0.2
Reductions relating to settlements with taxing authorities	(0.3)	—	(0.1)
Lapse of statutes of limitation	(0.7)	(0.6)	—
Unrecognized tax benefits at end of the year	\$ 0.7	\$ 1.7	\$ 1.9

Included in the balance of unrecognized tax benefits at December 31, 2022 and 2021 was \$0.5 and \$1.2, respectively of income tax (benefit)/expenses, which, if ultimately recognized, would impact our annual effective tax rate.

We accrued approximately \$0.1 and \$0.3 of interest and penalties at December 31, 2022 and 2021, respectively. Due to the expiration of various statutes of limitation and anticipated payments, it is reasonably possible our unrecognized tax benefits at December 31, 2022 December 31, 2023 may decrease within the next twelve months by \$0.2. We are subject to income taxes in the U.S. federal jurisdiction and various state and foreign jurisdictions. With few exceptions, we are no longer subject to U.S. federal, state and local or non-U.S. income tax examinations by tax authorities for years prior to 2018. \$1.7.

Defined Benefit Plan Plans

Following the Howden Acquisition, we assumed responsibility for approximately ten additional defined benefit plans outside of the United States, which are predominantly in Germany (the "Howden Plans"). Upon acquisition, we recognized a net liability on our consolidated balance sheet.

The components of net periodic pension income are as follows:

		U.S. Plans				
		U.S. Plans				
		U.S. Plans				International Plans
		Year Ended December 31,				Year Ended December 31,
		2022	2021	2020		
Interest cost	Interest cost	\$ 1.7	\$ 1.7	\$ 1.8		
Interest cost						
Interest cost						
Service cost						
Service cost						
Service cost						
Expected return on plan assets						
Expected return on plan assets						
Expected return on plan assets	Expected return on plan assets	(4.3)	(3.8)	(3.3)		
Amortization of net loss	Amortization of net loss	0.5	1.0	1.2		
Amortization of net loss						
Amortization of net loss						
Total net periodic pension income	Total net periodic pension income	<u>\$(2.1)</u>	<u>\$(1.1)</u>	<u>\$(0.3)</u>		
Total net periodic pension income						
Total net periodic pension income						

Each component of net periodic pension income is included in selling, general and administrative expenses in the consolidated statements of income. The other changes in plan assets and projected benefit obligations recognized in other comprehensive (loss) income are as follows:

	U.S. Plans		International Plans	
	Year Ended December 31,		Year Ended December 31,	
	2023	2022	2023	2022
Net actuarial (gain) loss	\$ (5.9)	\$ 1.7	\$ 0.1	\$ 0.1
Net amortization	(0.9)	(0.5)	—	—
Effect of foreign exchange rates	—	—	4.7	4.7

Total recognized in other comprehensive (loss) income	\$	(6.8)	\$	1.2	\$	4.8
---	----	-------	----	-----	----	-----

The changes in the projected benefit obligation and plan assets, the funded status of the plans and the amounts recognized in the consolidated balance sheets are as follows:

		December 31,	
		2022	2021
		U.S. Plans	
		U.S. Plans	
		U.S. Plans	
		International Plans	
		December 31,	
		2023	2022
Change in projected benefit obligation:			
Change in projected benefit obligation:			
Change in projected benefit obligation:	Change in projected benefit obligation:		
Projected benefit obligation at beginning of year	Projected benefit obligation at beginning of year	\$63.5	\$62.5
Projected benefit obligation at beginning of year			
Projected benefit obligation at beginning of year			
Acquisition of Howden ⁽¹⁾			
Acquisition of Howden ⁽¹⁾			
Acquisition of Howden ⁽¹⁾			
Interest cost	Interest cost	1.7	1.7
Assumption changes		(12.4)	(1.9)
Acquisition of Hudson Plan ⁽¹⁾		—	3.1
Interest cost			
Interest cost			
Service cost			
Service cost			
Service cost			
Benefits paid	Benefits paid	(3.0)	(2.8)
Actuarial losses		0.2	0.9
Benefits paid			
Benefits paid			
Actuarial (gains) losses			
Actuarial (gains) losses			
Actuarial (gains) losses			
Foreign exchange rate impact			
Foreign exchange rate impact			
Foreign exchange rate impact			
Projected benefit obligation at year end	Projected benefit obligation at year end	50.0	63.5

Projected benefit obligation at year end			
Projected benefit obligation at year end			
Accumulated benefit obligation at year end			
Accumulated benefit obligation at year end			
Accumulated benefit obligation at year end			
Change in plan assets:			
Change in plan assets:			
Change in plan assets:	Change in plan assets:		
Fair value of plan assets at beginning of year	Fair value of plan assets at beginning of year	61.9	53.9
Fair value of plan assets at beginning of year			
Fair value of plan assets at beginning of year			
Acquisition of Howden ⁽¹⁾			
Acquisition of Howden ⁽¹⁾			
Acquisition of Howden ⁽¹⁾			
Actual return	Actual return	(9.8)	8.3
Acquisition of Hudson Plan ⁽¹⁾		—	2.4
Actual return			
Actual return			
Employer contributions			
Employer contributions			
Employer contributions	Employer contributions	—	0.1
Benefits paid	Benefits paid	(3.0)	(2.8)
Benefits paid			
Benefits paid			
Foreign exchange rate impact			
Foreign exchange rate impact			
Foreign exchange rate impact			
Fair value of plan assets at year end			
Fair value of plan assets at year end			
Fair value of plan assets at year end	Fair value of plan assets at year end	49.1	61.9
Funded status (Accrued pension asset (liability))	Funded status (Accrued pension asset (liability))	\$ (0.9)	\$ (1.6)
Funded status (Accrued pension asset (liability))			
Funded status (Accrued pension asset (liability))			

Amounts recognized on the consolidated balance sheet at December 31:			
Amounts recognized on the consolidated balance sheet at December 31:			
Amounts recognized on the consolidated balance sheet at December 31:			
Non-current assets			
Non-current assets			
Non-current assets			
Current liabilities			
Current liabilities			
Current liabilities			
Non-current liabilities			
Non-current liabilities			
Non-current liabilities			
Recognized accrued pension asset (liability)			
Recognized accrued pension asset (liability)			
Recognized accrued pension asset (liability)			
Unrecognized actuarial loss recognized in accumulated other comprehensive loss	Unrecognized actuarial loss recognized in accumulated other comprehensive loss	\$10.3	\$ 8.0
Unrecognized actuarial loss recognized in accumulated other comprehensive loss			
Unrecognized actuarial loss recognized in accumulated other comprehensive loss			

(1) The 2021 2023 changes in the projected benefit obligation and plan assets reflect the effect of the Hudson Plan merger, Howden Acquisition.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Non-current assets and current liabilities related to defined benefit plans are classified within other assets and accrued salaries, wages and benefits, respectively, in our consolidated balance sheets.

The estimated net periodic pension income for the defined benefit pension plan Chart Plan that will be amortized from accumulated other comprehensive loss over the next fiscal year is \$0.1. \$0.8. The estimated net periodic pension income for the Howden Plans that will be amortized from accumulated other comprehensive loss over the next fiscal year is not material.

Howden Plans with accumulated benefit obligations in excess of plan assets consist of the following:

	International Plans	
	December 31,	
	2023	
Projected benefit obligation	\$	6.7
Accumulated benefit obligation		5.7
Fair value of plan assets		0.3

Howden Plans with projected benefit obligations in excess of plan assets consist of the following:

	International Plans	
	December 31,	
	2023	
Projected benefit obligation	\$	10.2
Accumulated benefit obligation		8.4
Fair value of plan assets		3.4

The actuarial assumptions used in determining pension plan information are as follows:

			International Plans	
			Year Ended	Year Ended
			December 31,	December 31,
			December 31,	
			2022	2021
			2020	
Assumptions used to determine benefit obligation at year end:				
Assumptions used to determine the projected obligation at year end:				
Assumptions used to determine the projected obligation at year end:				
Assumptions used to determine the projected obligation at year end:				
Discount rate	Discount rate		4.9 %	2.7 %
Discount rate				2.4 %
Discount rate				
Rate of increase in compensation levels for active pension plans				
Rate of increase in compensation levels for active pension plans				
Rate of increase in compensation levels for active pension plans				
Assumptions used to determine net periodic benefit cost:				
Assumptions used to determine net periodic benefit cost:				
Assumptions used to determine net periodic benefit cost:				
Discount rate	Discount rate		2.7 %	2.4 %
Discount rate				3.2 %
Discount rate				

Expected long-term weighted-average rate of return on plan assets	Expected long-term weighted-average rate of return on plan assets		
	7.0 %	7.0 %	7.0 %
Expected long-term weighted-average rate of return on plan assets			
Expected long-term weighted-average rate of return on plan assets			
Rate of increase in compensation levels for active pension plans			
Rate of increase in compensation levels for active pension plans			
Rate of increase in compensation levels for active pension plans			

U.S. Plans

The discount rate of the Chart Plan reflects the current rate at which the pension liabilities could be effectively settled at year end. In estimating this rate, we look to rates of return on high quality, fixed-income investments that receive one of the two highest ratings given by a recognized rating agency and the expected timing of benefit payments under the plan.

The expected return assumptions were developed using an averaging formula based upon the plans' investment guidelines, mix of asset classes, historical returns of equities and bonds, and expected future returns. We employ a total return investment approach whereby a mix of equities and fixed income investments are used to maximize the long-term return of plan assets for a prudent level of risk. Risk tolerance is established through careful consideration of short and long-term plan liabilities, plan funded status and corporate financial condition. The investment portfolio contains a diversified blend of equity and fixed-income investments. Furthermore, equity investments are diversified across U.S. and non-U.S. stocks, as well as

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

and fixed-income investments. Furthermore, equity investments are diversified across U.S. and non-U.S. stocks, as well as growth, value, and small and large capitalizations. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews, annual liability measurements, and periodic asset/liability studies.

International Plans

In determining discount rates for the Howden Plans, we utilize the single discount rate equivalent to discounting the expected future cash flows from each plan using the yields at each duration from a published yield curve as of the measurement date. The expected long-term rate of return on plan assets was based on our investment policy target allocation of the asset portfolio between various asset classes and the expected real returns of each asset class over various periods of time that are consistent with the long-term nature of the underlying obligations of these plans.

Our primary investment objective for the defined benefit pension plan assets is to provide a source of retirement income for the plans' participants and beneficiaries. The Chart Plan's target allocations by asset category and fair values of the plan assets by asset class at December 31 are as follows:

		Target		Fair Value														
				Total		Level 2		Level 3										
		Allocations												U.S. Plans				
		by Asset Category																
														Fair Value				
		Target												Level 2		Level 3		
		Allocations												Total				
		by Asset																
		Category																

observable, but is based on observable inputs. As such, these plan assets are valued using Level 2 inputs. Certain plan assets in the other investments asset category are invested in a general investment account where the fair value is derived from the liquidation value based on an actuarial formula as defined under terms of the investment contract. These plan assets were valued using unobservable inputs and, accordingly, the valuation was performed using Level 3 inputs.

The following table represents changes in the fair value of plan assets categorized as Level 3 from the preceding table:

	U.S. Plans	
Balance at December 31, 2020	\$	1.8
Purchases, sales and settlements, net		(3.0)
Transfers, net		3.2
Balance at December 31, 2021	\$	2.0
Purchases, sales and settlements, net		(3.4)
Transfers, net		2.5
Balance at December 31, 2022		1.1
Purchases, sales and settlements, net		(2.9)
Transfers, net		5.3
Balance at December 31, 2023	\$	1.1 3.5

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The Howden Plans' target allocations by asset category and fair values of the plan assets by asset class at December 31 are as follows:

		International Plans		
		Fair Value		
		Total	Level 1	Level 2
Plan Assets:	Target Allocations by Asset Category	2023	2023	2023
Cash and cash equivalents	0%	\$ 0.2	\$ 0.2	\$ —
Insurance contracts	7%	2.9	—	2.9
Investments funds	93%	38.7	—	38.7
Total		\$ 41.8	\$ 0.2	\$ 41.6

The assets are invested with the goal of preserving principal while providing a reasonable real rate of return over the long term. Diversification of assets is achieved through strategic allocations to various asset classes in line with the investment guidelines of the plans. Actual allocations to each asset class vary due to periodic investment strategy changes, market value fluctuations, the length of time it takes to fully implement investment allocation positions, and the timing of benefit payments and contributions. The asset allocation is monitored and rebalanced as required, as frequently as on a quarterly basis in some instances. The plan assets are primarily invested in pooled separate funds. The fair values of equity securities and fixed income securities held in pooled separate funds are based on net asset value of the units of the funds as determined by the fund manager. These funds are similar in nature to retail mutual funds, but are typically more efficient for institutional investors. The fair value of pooled funds is determined by the value of the underlying assets held by the fund and the units outstanding. The value of the pooled funds is not directly observable, but is based on observable inputs. As such, these plan assets are valued using Level 2 inputs.

Our funding policy is to contribute at least the minimum funding amounts required by law. Based upon current actuarial estimates, we do not expect to contribute to our defined benefit pension plan Chart Plan in the next five years. Expected contributions to our Howden Plans for the year ended December 31, 2024, related to plans as of December 31, 2023, are \$2.5. The following benefit payments are expected to be paid by the plan in each of the next five years and in the aggregate for the subsequent five years:

2023	\$3.5		
U.S. Plans		U.S. Plans	International Plans
2024	2024	3.5	
2025	2025	3.6	
2026	2026	3.6	
2027	2027	3.7	
2028			

In	In
aggregate	aggregate
during	during
five years	five years
thereafter	thereafter 17.9

Multi-Employer Plan

We contribute to a multi-employer plan for certain collective bargaining U.S. employees. The risks of participating in this multi-employer plan are different from a single employer plan in the following aspects:

- (a) Assets contributed to the multi-employer plan by one employer may be used to provide benefits to employees of other participating employers.
- (b) If a participating employer ceases contributing to the plan, the unfunded obligations of the plan may be inherited by the remaining participating employers.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

- (c) If we choose to stop participating in the multi-employer plan, we may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability.

We have assessed and determined that the multi-employer plan to which we contribute is not significant to our financial statements. We do not expect to incur a withdrawal liability or expect to significantly increase our contribution over the remainder of the current contract period, which ends in February 2026. We made contributions to the bargaining unit supported multi-employer pension plan resulting in expense of \$0.7, \$0.6, for the year ended December 31, 2022 and \$0.5 for both of for the years ended December 31, 2021 December 31, 2023, 2022, and 2020. 2021, respectively.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Defined Contribution Savings Plan Plans

We have a The Company also sponsors defined contribution savings plan that covers most of our U.S. employees, plans at various locations globally. Company contributions to the plan plans are based on employee contributions and include a Company match and discretionary contributions. Expenses under the plan totaled \$18.2, \$6.8, \$5.7, and \$4.9 \$5.7 for the years ended December 31, 2022 December 31, 2023, 2022, and 2021, and 2020, respectively.

Voluntary Deferred Income Plan

We provide additional retirement plan benefits to certain members of management under the Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan. This is an unfunded plan. We recorded \$0.6, \$0.3, \$0.1, and \$0.3 \$0.1 of expense associated with this plan for the years ended December 31, 2022 December 31, 2023, 2021 2022, and 2020, 2021, respectively.

NOTE 19 — Share-based Compensation

Under the 2017 Omnibus Equity Plan (the "2017 Omnibus Equity Plan") officers and employees (including our principal executive officer, principal financial officer and other "named executive officers") are eligible to be granted stock options, stock appreciation rights ("SARs"), restricted stock, restricted stock units ("RSUs"), performance shares and common shares. The maximum number of shares available for issuance is 1.70, which may be treasury shares or unissued shares. As of December 31, 2022 December 31, 2023, 0.23 0.26 stock options, 0.11 shares of restricted stock and RSUs, and 0.07 performance units were outstanding under the 2017 Omnibus Equity Plan.

Under the Amended and Restated 2009 Omnibus Equity Plan ("2009 Omnibus Equity Plan") which was originally approved by our shareholders in May 2009 and re-approved by shareholders in May 2012 as amended and restated, we could grant stock options, SARs, RSUs, restricted stock, performance shares, leveraged restricted shares, and common shares to employees and directors. The maximum number of shares available for issuance is 3.35, which could be treasury shares or unissued shares. As of December 31, 2022 December 31, 2023, 0.04 0.03 stock options were outstanding under the 2009 Omnibus Equity Plan.

We recognized share-based compensation expense of \$12.6, \$10.6, \$11.2, and \$8.6 \$11.2 for the years ended December 31, 2022 December 31, 2023, 2021 2022, and 2020, 2021, respectively. This expense is included in selling, general and administrative expenses in the consolidated statements of income. The income. The tax benefit related to share-based compensation, which was recorded in net income in the consolidated statement of income during the years ended December 31, 2022 December 31, 2023, 2021 2022, and 2020 2021 was \$1.7, \$1.4 \$2.2 and \$1.6 \$2.2 respectively, which was recorded in net income in the consolidated statements of income. income. As of December 31, 2022 December 31, 2023, total share-based compensation expense of \$12.2 \$15.4 is expected to be recognized over the remaining weighted-average period of approximately 2.1 years.

Stock Options

We use a Black-Scholes option pricing model to estimate the fair value of stock options. The expected volatility is based on historical information. The risk-free rate is based on the U.S. Treasury yield in effect at the time of the grant. Weighted-average grant-date fair values of stock options and the assumptions used in estimating the fair values are as follows:

Year Ended December 31,									
2022					2021				
2020									
Year Ended December 31,					Year Ended December 31,				
2023					2023				
2022					2022				
2021					2021				
Weighted-average grant-date fair value per share	Weighted-average grant-date fair value per share				Weighted-average grant-date fair value per share				
\$67.58	\$52.19	\$28.53			\$ 57.15	\$ 67.58	\$ 52.19		
Expected term (years)	Expected term (years)				Expected term (years)				
4.7	4.7	4.8			4.7	4.7			
Risk-free interest rate	Risk-free interest rate				Risk-free interest rate				
1.32 %	0.33 %	1.66 %			3.98 %	1.32 %	0.33 %		
Expected volatility	Expected volatility				Expected volatility				
51.24 %	53.10 %	46.60 %			54.66 %	51.24 %	53.10 %		

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Stock options generally have a four-year graded vesting period, an exercise price equal to the fair market value of a share of common stock on the date of grant, and a contractual term of 10 years. The following table summarizes our stock option activity from continuing operations:

		December 31, 2022				December 31, 2023					
		Number of Shares	Weighted-average Exercise Price	Aggregate Intrinsic Value	Weighted-average Remaining Contractual Term	Number of Shares	Weighted-average Exercise Price	Aggregate Intrinsic Value	Weighted-average Remaining Contractual Term		
Outstanding at beginning of year	Outstanding at beginning of year	0.28	\$ 71.38								
Granted	Granted	0.04	153.81								
Granted	Granted										
Granted	Granted										
Exercised	Exercised										
Exercised	Exercised										
Exercised	Exercised	(0.03)	67.90								
Forfeited / Cancelled	Forfeited / Cancelled	(0.02)	102.10								
Forfeited / Cancelled	Forfeited / Cancelled										
Forfeited / Cancelled	Forfeited / Cancelled										
Outstanding at end of year	Outstanding at end of year	0.27	\$ 79.91	\$ 10.8	6.1 years	0.29	\$ 87.09	\$ 14.5	6.0 years		6.0 years
Vested and expected to vest at end of year	Vested and expected to vest at end of year	0.27	\$ 78.82	\$ 8.5	6.0 years	0.28	\$ 86.29	\$ 12.1	5.9 years		5.9 years

Exercisable at end of year	Exercisable at end of year					Exercisable at end of year							
		0.15	\$ 59.91	\$	10.8	5.0 years	0.18	\$	\$ 70.22	\$	\$	14.4	4.8 years
													4.8 years

As of **December 31, 2022** **December 31, 2023**, total unrecognized compensation cost related to stock options expected to be recognized over the weighted-average period of approximately **2.2** **2.3** years is **\$2.2**, **\$2.3**.

The total intrinsic value of options exercised during the years ended **December 31, 2022** **December 31, 2023**, **2022**, and **2021** was **\$2.3**, **\$3.5**, and **2020** was **\$3.5**, **\$10.3**, and **\$13.2**, respectively. The total fair value of stock options vested during the years ended **December 31, 2022** **December 31, 2023**, **2022**, and **2021** was **\$2.1**, **\$2.3**, and **2020** was **\$2.3**, **\$2.6**, and **\$3.5**, respectively.

Restricted Stock and RSUs

Restricted stock and RSUs generally vest ratably over a three-year period and are valued based on our market price on the date of grant. The following table summarizes our unvested restricted stock and RSUs activity from continuing operations:

		December 31, 2022		December 31, 2023		
		Weighted-Average Grant-Date Fair Value		Number of Shares		Weighted-Average Grant-Date Fair Value
Unvested at beginning of year	Unvested at beginning of year	0.11	\$ 87.74			
Granted	Granted	0.07	155.02			
Forfeited	Forfeited	(0.01)	117.18			
Vested	Vested	(0.06)	84.09			
Unvested at end of year	Unvested at end of year	0.11	\$125.14			

As of **December 31, 2022** **December 31, 2023**, total unrecognized compensation cost related to unvested restricted stock and RSUs expected to be recognized over the weighted-average period of approximately **2.4** **2.2** years is **\$7.2**, **\$8.6**.

The weighted-average grant-date fair value of restricted stock and RSUs granted during the years ended **December 31, 2022** **December 31, 2023**, **2022**, and **2021** was **\$132.28**, **\$155.02**, and **2020** was **\$155.02**, **\$124.32**, and **\$63.32**, respectively. The total fair value of restricted stock and RSUs that vested during the years ended **December 31, 2022** **December 31, 2023**, **2022**, and **2021** was **\$7.7**, **\$10.0**, and **2020** was **\$10.0**, **\$17.4**, and **\$6.8**, respectively.

CHART INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(Dollars and shares in millions, except per share amounts)

Performance Units

Performance units are earned over a three-year period. Based on the attainment of pre-determined performance **and market** condition targets as determined by the Compensation Committee of the Board of Directors, performance units earned may be in the range of between 0% and 200%. The following table, which is stated at a 100% earned percentage, summarizes our performance units activity from continuing operations:

		December 31, 2022		December 31, 2023		
		Weighted-Average Grant-Date Fair Value		Number of Shares		Weighted-Average Grant-Date Fair Value
Unvested at beginning of year	Unvested at beginning of year	0.09	\$ 84.44			
Granted	Granted	0.01	153.81			
Vested	Vested	(0.02)	68.30			
Forfeited	Forfeited	(0.01)	71.59			

Unvested at end of year	Unvested at end of year	0.07	\$103.66
-------------------------------	-------------------------------	------	----------

As of December 31, 2022 December 31, 2023, total unrecognized compensation cost related to performance units expected to be recognized over a weighted-average period of approximately 1.5 1.8 years is \$2.8, \$4.5.

The weighted-average grant-date fair value of performance units granted during the years ended December 31, 2022, December 31, 2023, 2022, and 2021 was \$126.86, \$153.81, and 2020 was \$153.81, \$118.41, and \$67.50, respectively. The total fair value of performance units that vested during the years ended December 31, 2022 December 31, 2023, 2022, and 2021 was \$3.4, \$2.6, and 2020 was \$2.6, \$0.9, and \$0.3, respectively.

Directors' Stock Grants

In 2023, 2022, 2021 and 2020, 2021, we granted the non-employee directors stock awards covering 0.01 shares of common stock for each of those years, which had fair values of \$1.1, \$0.7, \$0.6, and \$1.3, \$0.6, respectively. These stock awards were fully vested on the grant date. Likewise, the fair values were recognized immediately on the grant date.

NOTE 20 — Leases

Lessee Accounting

As of December 31, 2022 The Company leases certain office spaces, warehouses, facilities, vehicles and 2021, operating ROU assets and lease liabilities were \$21.1 and \$21.0 (\$5.4 of which was current), and \$27.3 and \$27.2 (\$5.8 of which was current), respectively. The weighted-average remaining term for lease contracts was 4.4 years at December 31, 2022, with equipment. Our leases have maturity dates ranging from January 2023 2024 to June 2031. The weighted-average discount rate was 3.4% at December 31, 2022, September 2036. Leases with an initial term of twelve months or less are not recorded on the balance sheet. Operating lease ROU assets are classified as property, plant and equipment, net in the consolidated balance sheets. Finance lease ROU assets are classified as property, plant other assets in the consolidated balance sheets. Operating lease liabilities are classified as operating lease liabilities, current and equipment, net operating lease liabilities, non-current. Finance lease liabilities are classified as other current liabilities and other long-term liabilities in the consolidated balance sheets.

We incurred \$21.1, \$16.9 \$12.1, and \$11.1 \$12.1 of rental expense under operating leases for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, respectively. Certain operating leases contain rent escalation clauses and lease concessions that require additional rental payments in the later years of the term. Rent expense for these types of leases is recognized on a straight-line basis over the minimum lease term. Adjustments for straight-line rental expense for the respective periods was not material and as such, the majority of expense recognized was reflected in cash used in provided by operating activities for the respective periods. This expense consisted primarily of payments for base rent on building and equipment leases. Payments related to short-term lease costs and taxes and variable service charges on leased properties were immaterial. In addition, we have the right, but no obligation, to renew certain leases for various renewal terms.

We incurred \$0.7, \$0.2 and \$0.2 of finance lease interest for the years ended December 31, 2023, 2022 and 2021, respectively.

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

The following table presents the lease balances within our consolidated balance sheets, weighted average remaining lease term and weighted average discount rates related to our leases:

Lease Assets and Liabilities	December 31, 2023	December 31, 2022
Assets		
Operating lease, net	\$ 69.1	\$ 21.1
Finance lease, net	16.1	3.0
Total lease assets	\$ 85.2	\$ 24.1
Liabilities		
Current:		
Operating lease liabilities	\$ 18.5	\$ 5.4
Finance lease liabilities	3.0	1.7
Non-current:		
Operating lease liabilities	50.7	15.6
Finance lease liabilities	14.2	1.5
Total lease liabilities	\$ 86.4	\$ 24.2
Weighted-average remaining lease terms		

Operating leases	5.1 years	4.4 years
Finance leases	5.9 years	2.1 years
Weighted-average discount rate		
Operating leases	6.6%	3.4%
Finance leases	6.7%	4.4%

Leased assets obtained in exchange for new finance and operating lease liabilities for the year ended December 31, 2023 were \$15.4 and \$62.3, respectively.

The following table summarizes future minimum lease payments for non-cancelable operating leases and for finance leases as of December 31, 2022 December 31, 2023:

2023		\$ 6.6		
	Finance		Finance	Operating
2024	2024	6.0		
2025	2025	5.0		
2026	2026	2.8		
2027	2027	0.7		
2028				
Thereafter	Thereafter			
(1)	(1)	0.7		
Total	Total			
future	future			
minimum	minimum			
lease	lease			
payments	payments	\$21.8		
Less:				
Present				
value				
discount				
Lease				
Liability				

- (1) As of December 31, 2022 December 31, 2023, future minimum lease payments for non-cancelable operating leases for periods subsequent to 2027 2028 relate to four 20 leased facilities.

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

Lessor Accounting

We lease equipment manufactured by Chart primarily through our Cryo-Lease program as sales-type and operating leases. As of December 31, 2022 December 31, 2023 and 2021, 2022, our short-term net investment in sales-type leases was \$14.5 \$21.4 and \$9.3, \$14.5, respectively and is included in other current assets in our consolidated balance sheets. Our long-term net investment in sales-type leases was \$44.3 \$62.1 and \$31.9 \$44.3 as of December 31, 2022 December 31, 2023 and 2021, 2022, respectively, and is included in other assets in our consolidated balance sheets. For sales-type leases, interest income was \$3.3, \$2.4 \$0.9 and \$0.1 \$0.9 in the consolidated statements of income for the years ended December 31, 2022 December 31, 2023, 2022, and 2021, and 2020, respectively.

Operating leases offered by Chart may include early termination options. At the end of a lease, a lessee generally has the option to either extend the lease, purchase the underlying equipment for a fixed price or return it to Chart. The lease agreements clearly define applicable return conditions and remedies for non-compliance to ensure that leased equipment will be in good operating condition upon return.

The following table represents sales from sales-type and operating leases:

		December 31,	
		2022	2021
	December 31,		December 31,
	2023	2023	2022
Sales-type	Sales-type		
leases	leases	\$28.1	\$46.5

Operating leases	Operating leases	4.1	2.4
Total sales from leases	Total sales from leases	\$32.2	\$48.9

The following table represents scheduled payments for sales-type leases:

		December 31, 2022	
2023		\$ 15.1	
December 31, 2023			December 31, 2023
2024	2024	15.1	
2025	2025	15.0	
2026	2026	12.0	
2027	2027	5.6	
2028			
Thereafter	Thereafter	40.8	
Total	Total	103.6	
Less: unearned income	Less: unearned income	44.8	
Less: unearned income			
Less: unearned income			
Total	Total	\$ 58.8	

The following table represents the cost of equipment leased to others:

	December 31,	
	2023	2022
Equipment leased to others, cost	\$ 20.6	\$ 17.3
Less: accumulated depreciation	4.4	3.1
Equipment leased to others, net	\$ 16.2	\$ 14.2

The following table represents payments due for operating leases:

	December 31, 2023
2024	\$ 0.4
2025	0.1
2026	—
2027	—
2028	—
Thereafter	—
Total	\$ 0.5

CHART INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(Dollars and shares in millions, except per share amounts)

The following table represents the cost of equipment leased to others:

	December 31,
--	--------------

	2022	2021
Equipment leased to others, cost	\$ 17.3	\$ 13.6
Less: accumulated depreciation	3.1	2.1
Equipment leased to others, net	\$ 14.2	\$ 11.5

The following table represents payments due for operating leases:

	December 31, 2022
2023	\$ 0.5
2024	0.1
2025	0.1
2026	0.1
2027	0.1
Thereafter	—
Total	\$ 0.9

NOTE 21 — Commitments and Contingencies

Environmental

We are subject to federal, state, local, and foreign environmental laws and regulations concerning, among other matters, waste water effluents, air emissions, and handling and disposal of hazardous materials, such as cleaning fluids. We are involved with environmental compliance, investigation, monitoring, and remediation activities at certain of our owned and formerly owned manufacturing facilities and at one owned facility that is leased to a third party, and, except for these continuing remediation efforts, believe we are currently in substantial compliance with all known environmental regulations. Undiscounted accrued reserves at December 31, 2022, December 31, 2023 and 2021 2022 were not material.

Legal Proceedings

In connection with our divestiture of our Cryobiological cryobiological products business on October 1, 2020, Chart retained certain potential liabilities, including claims in connection with our following litigation. During the second quarter of 2018, Chart was named in lawsuits (including lawsuits filed in the U.S. District Court for the Northern District of California) filed California and the San Francisco Superior Court during the second quarter of 2018 against Chart and other defendants with respect to the alleged failure of a stainless steel cryobiological storage tank (model MVE 808AF-GB) at the Pacific Fertility Center in San Francisco, California. In May and June of 2021, the first five of the federal lawsuits went to trial, and on June 10, 2021, the jury reached a verdict against Chart in favor of the plaintiffs in those lawsuits in the amount of \$14.9 million, of which 90% (\$13.5 million) is attributable to Chart. Subsequent to the initial verdict, the Company filed various post-trial motions and appeals based on various factors, including the Company's belief that the allocation of fault was not supported by the record, the award of emotional distress damages, the exclusion of certain evidence of trial, and our contention that plaintiffs failed to present sufficient evidence to prove each element of their claim.

In the second quarter 2021, we recorded a loss contingency accrual and corresponding charge to net income for \$13.5 million in the amount of the jury verdict attributable to Chart, with an offsetting \$13.5 million loss recovery receivable for anticipated insurance proceeds, with a corresponding credit to net income.

On June 13, 2022, Starr Indemnity & Liability Company ("Starr") filed a complaint for declaratory relief and reimbursement in the U.S. District Court for the Northern District of California seeking a determination of what obligation, if any, Starr has to indemnify Chart in connection with the Pacific Fertility Center actions. On June 14, 2022, Chart filed its own declaratory judgment action against Starr in the U.S. District Court for the Northern District of Georgia seeking a determination that Starr has a duty to indemnify the Company in connection with the Pacific Fertility Center actions.

As previously disclosed, the Company has been engaged in ongoing discussions in an effort to establish a settlement framework for the various lawsuits (both in the U.S. District Court for the Northern District of California, as well as the San

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

Francisco Superior Court) associated with the Pacific Fertility Center. After substantial discussions with the various constituent parties, the Company reached a preliminary settlement in late January 2023 to resolve these 217 cases. This preliminary settlement will resolve cases. In the prior verdict for the initially tried cases, which is on appeal, as well as the previously disclosed Starr insurance dispute, and remains subject to the satisfaction fourth quarter of certain conditions, which 2022, the Company currently anticipates occurring as early as March 2023. The Company has taken recorded a loss contingency accrual of \$305.6 million and a related loss receivable of \$231.9 million from insurance proceeds from these combined cases, which are were recognized in our consolidated balance sheet. sheet as of December 31, 2022. The net loss of approximately \$73.0 million is was recognized in discontinued operations and represents represented the expected out-of-pocket payments in connection with these settlements. The settlement was finalized and funded on March 20, 2023; therefore the previously disclosed loss contingency accrual and related loss receivable are no longer recorded as of December 31, 2023. This settlement and the net out-of-pocket payments do not reflect third-party recoveries which the Company is pursuing with respect to the underlying facts in these cases, and which the Company currently anticipates will result in recoveries approximating one-quarter or more of the Company's out-of-pocket, net payments.

We continue to evaluate the merits of the sole remaining lawsuit that is was not included in the preliminary settlement in light of the information available. Based on the status of that lawsuit, a current estimate of reasonably possible losses in that case cannot be made; however, the Company does not anticipate the potential exposure to be material. This

preliminary settlement and the expected net out-of-pocket payments The Company does not reflect third party recoveries which intend to report on this lawsuit quarterly, absent developments that would impact the Company will aggressively pursue with respect to the underlying facts in these cases, and which the Company currently anticipates will result in recoveries approximating one-quarter or more materiality of the Company's out-of-pocket, net payments. claim.

We are occasionally subject to various legal claims related to performance under contracts, product liability, taxes, employment matters, environmental matters, intellectual property, and other matters incidental to the normal course of our business. Based on our historical experience in litigating these claims, as well as our current assessment of the underlying merits of the claims and applicable insurance, if any, management believes that the final resolution of these matters, including the sole remaining Pacific Fertility Center cases case described above, will not have a material adverse effect on our financial position, liquidity, cash flows, or results of operations, except that our results of operations for any particular reporting period may be adversely affected by any potential or actual loss that is accrued in such period. Future developments may, however, result in resolution of these legal claims in a way that could have a material adverse effect.

NOTE 22 — Restructuring Activities

Restructuring costs of \$13.5 for the year ended December 31, 2023, were primarily related to cost reduction actions relative to Howden integration. Restructuring credits of \$1.0 for the year ended December 31, 2022, were primarily related to the reversal of prior restructuring accruals for employee retention at our Houston, Texas facility which was offset by moving and offset employee severance costs relative to restructuring related costs in the segment in 2022.

at our Beasley, Texas, Houston, Texas, and Tulsa Oklahoma facilities. Restructuring costs of \$3.5 for the year ended December 31, 2021, were primarily related to moving and employee severance costs. During the third quarter of 2021, we announced our intention to transfer our Houston, Texas repair and service operations to our Beasley, Texas location.

During 2020, we implemented certain cost reduction actions across all segments and corporate to appropriately size our workforce with demand as well as eliminate redundant work. Costs were primarily related to headcount reductions. These actions resulted in total restructuring costs of \$13.6 for the year ended December 31, 2020, consisting of mainly employee severance costs of \$10.1. We also transferred operations of our heat exchanger leased facility in Tulsa, Oklahoma to our Beasley, Texas location at which we own 260 acres of land and repurposed our Tulsa, Oklahoma facility as a flexible manufacturing, engineering and research and development site serving multiple applications across our operating segments. We incurred costs of \$2.7 in 2020 related to this project, which is included in total restructuring costs for the year ended December 31, 2020.

We closely monitor our end markets and order rates and continue to take appropriate and timely actions as necessary.

CHART INDUSTRIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (Dollars and shares in millions, except per share amounts)

The following table summarizes severance and other restructuring costs (credits) and costs, which includes employee-related costs, facility rent and exit costs, relocation, recruiting, travel and other, for the years ended December 31, 2022, 2021 and 2020: other:

		Year Ended December 31,					
		2022 2021 2020					
		Year Ended December 31,			Year Ended December 31,		
		2023			2023 2022 2021		
Severance:	Severance:						
Cost of sales	Cost of sales						
Cost of sales	Cost of sales						
Cost of sales	Cost of sales	\$	—	\$0.4	\$	4.6	
Selling, general, and administrative expenses	Selling, general, and administrative expenses	—	0.8	5.5			
Total severance costs	Total severance costs	—	1.2	10.1			
Other restructuring:	Other restructuring:						
Cost of sales	Cost of sales	(1.0)	2.2	1.1			
Cost of sales	Cost of sales						
Cost of sales	Cost of sales						
Selling, general, and administrative expenses	Selling, general, and administrative expenses	—	0.1	2.4			
Total other restructuring costs	Total other restructuring costs	(1.0)	2.3	3.5			

Total other restructuring costs (credits)			
Total restructuring (credits) costs	<u>\$(1.0)</u>	<u>\$3.5</u>	<u>\$13.6</u>
Total restructuring costs (credits)			
Total restructuring costs (credits)			
Total restructuring costs (credits)			

The following tables summarize table summarizes restructuring costs (credits) by reportable segment:

	Year Ended December 31,		
	2023	2022	2021
Cryo Tank Solutions	\$ 1.6	\$ 0.1	\$ 0.3
Heat Transfer Systems	0.9	0.3	1.7
Specialty Products	1.8	—	—
Repair, Service & Leasing	4.0	(1.4)	1.5
Corporate	5.2	—	—
Total restructuring costs (credits)	<u>\$ 13.5</u>	<u>\$ (1.0)</u>	<u>\$ 3.5</u>

The following table summarizes our consolidated restructuring accrual activities:

	Year Ended December 31, 2022					
	Heat Transfer		Repair, Service &		Corporate	Total
	Cryo Tank Solutions	Systems	Specialty Products	Leasing		
Balance as of December 31, 2021	\$ 0.4	\$ 0.5	\$ —	\$ 1.4	\$ —	\$ 2.3
Restructuring charges	0.1	0.3	—	(1.4)	—	(1.0)
Cash payments and other	(0.4)	(0.8)	0.1	—	—	(1.1)
Balance as of December 31, 2022	<u>\$ 0.1</u>	<u>\$ —</u>	<u>\$ 0.1</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 0.2</u>
	Year Ended December 31, 2021					
	Heat Transfer		Repair, Service &		Corporate	Total
	Cryo Tank Solutions	Systems	Specialty Products	Leasing		
Balance as of December 31, 2020	\$ 0.5	\$ 0.2	\$ —	\$ —	\$ 0.1	\$ 0.8
Restructuring charges	0.3	1.7	—	1.5	—	3.5
Cash payments and other	(0.4)	(1.4)	—	(0.1)	(0.1)	(2.0)
Balance as of December 31, 2021	<u>\$ 0.4</u>	<u>\$ 0.5</u>	<u>\$ —</u>	<u>\$ 1.4</u>	<u>\$ —</u>	<u>\$ 2.3</u>
	Year Ended December 31, 2020					
	Heat Transfer		Repair, Service &		Corporate	Total
	Cryo Tank Solutions	Systems	Specialty Products	Leasing		
Balance as of December 31, 2019	\$ 0.5	\$ 0.2	\$ —	\$ —	\$ 0.2	\$ 0.9
Restructuring charges	2.7	7.4	0.7	0.2	2.6	13.6
Cash payments and other	(2.7)	(7.4)	(0.7)	(0.2)	(2.7)	(13.7)
Balance as of December 31, 2020	<u>\$ 0.5</u>	<u>\$ 0.2</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 0.1</u>	<u>\$ 0.8</u>
Balance as of December 31, 2020						\$ 0.8
Restructuring costs						3.5
Cash payments and other						(2.0)
Balance as of December 31, 2021						2.3
Restructuring credits						(1.0)
Cash payments and other						(1.1)
Balance as of December 31, 2022						0.2
Restructuring costs						13.5
Cash payments and other						(11.8)
Balance as of December 31, 2023						<u>\$ 1.9</u>

CHART INDUSTRIES, INC. AND SUBSIDIARIES
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
(Dollars in millions)

		Additions						
	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts		Deductions	Translations	Balance at end of period	
Year Ended December 31, 2022								
Allowance for doubtful accounts	\$ 6.0	\$ 0.5	\$ —		\$ (2.6) ⁽¹⁾	\$ 0.6	\$ 4.5	
Allowance for excess and obsolete inventory	10.9	1.8	—		(4.1) ⁽²⁾	(0.4)	8.2	
Deferred tax assets valuation allowance	21.6	0.4	—		(14.8)	(1.8)	5.4	
Year Ended December 31, 2021								
Allowance for doubtful accounts	\$ 8.4	\$ 1.2	\$ —		\$ (1.1)	\$ (2.5)	\$ 6.0	
Allowance for excess and obsolete inventory	9.7	11.4	—		(9.8) ⁽²⁾	(0.4)	10.9	
Deferred tax assets valuation allowance	33.9	0.3	—		(12.7)	0.1	21.6	
Year Ended December 31, 2020								
Allowance for doubtful accounts	\$ 8.5	\$ 0.4	\$ —		\$ —	\$ (0.5)	\$ 8.4	
Allowance for excess and obsolete inventory	10.6	0.4	—		(0.5) ⁽²⁾	(0.8)	9.7	
Deferred tax assets valuation allowance	68.2	0.3	—		(36.6) ⁽³⁾	2.0	33.9	

		Additions						
	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts		Deductions	Translations	Balance at end of period	
Year Ended December 31, 2023								
Allowance for credit losses	\$ 4.5	\$ 2.2	\$ —		\$ (0.6) ⁽¹⁾	\$ (0.2)	\$ 5.9	
Deferred tax assets valuation allowance	5.4	—	86.9		(2.0) ⁽²⁾	—	90.3	
Year Ended December 31, 2022								
Allowance for credit losses	\$ 6.0	\$ 0.5	\$ —		\$ (2.6) ⁽¹⁾	\$ 0.6	\$ 4.5	
Deferred tax assets valuation allowance	21.6	0.4	—		(14.8)	(1.8)	5.4	
Year Ended December 31, 2021								
Allowance for credit losses	\$ 8.4	\$ 1.2	\$ —		\$ (1.1) ⁽¹⁾	\$ (2.5)	\$ 6.0	
Deferred tax assets valuation allowance	33.9	0.3	—		(12.7)	0.1	21.6	

⁽¹⁾ Reversal of amounts previously recorded as bad debt and uncollectible accounts written off.

⁽²⁾ Inventory items written off against the allowance.

⁽³⁾ Deductions to the deferred tax assets valuation allowance relate to decreased deferred tax assets and the release of the valuation allowance. During the year ended December 31, 2020, we reduced our deferred tax assets relative to the Cryobiological Divestiture and as such also reduced the related valuation allowance by \$32.4.

INDEX TO EXHIBITS

Exhibit No.	Description
2.1	Agreement and Plan of Merger, among Chart Industries, Inc., Chart Sully Corporation, RCHPH Holdings, Inc., and R/C Hudson Holdings, L.P., solely in its capacity as the Initial Holder Representative under the Merger Agreement, dated as of June 30, 2017 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission ("SEC") on June 30, 2017 (File No. 001-11442)).**
2.1.1	Amendment No. 1, dated September 19, 2017, to Agreement and Plan of Merger, among Chart Industries, Inc., Chart Sully Corporation, RCHPH Holdings, Inc., and R/C Hudson Holdings, L.P., solely in its capacity as the Initial Holder Representative under the Merger Agreement, dated as of June 30, 2017 (incorporated by reference to Exhibit 2.2 to the Registrant's Current Report on Form 8-K filed with the SEC on September 21, 2017 (File No. 001-11442)).**
2.2	Share Purchase Agreement, by and among Chart Industries, Inc., Alessandro Spada, Elena Spada and Federico Spada, dated as of September 26, 2018 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on September 27, 2018 (File No. 001-11442)).**
2.2.1	Amended and Restated Share Purchase Agreement, by and among Chart Industries, Inc., Alessandro Spada, Elena Spada, Federico Spada and VRV S.p.a., dated as of November 13, 2018 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 15, 2018 (File No. 001-11442)).**
2.3	Stock Purchase Agreement, by and among Chart Inc., Chart Industries Luxembourg S.à r.l., Chart Asia Investment Company Limited and NGK Spark Plug Co., Ltd., dated as of September 28, 2018 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 1, 2018 (File No. 001-11442)).**
2.4	Asset Purchase Agreement, dated as of May 8, 2019, by and among Chart Industries, Inc., E&C FinFan, Inc. and Harsco Corporation (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on May 9, 2019).
2.5	Purchase Agreement by and between Chart Industries, Inc. and Cryoport, Inc. dated as of August 24, 2020 (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on August 25, 2020 (File No. 001-11442)).
2.6	Equity Purchase Agreement, dated as of November 8, 2022, by and among Granite Holdings I B.V., Granite Holdings II B.V., Granite US Holdings GP, LLC, Granite US Holdings LP, Granite Acquisition GmbH, Granite Canada Holdings Acquisition Corp., HowMex Holdings, S. de R.L. de C.V. and Chart Industries, Inc. (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 9, 2022 (File No. 001-11442)).**
2.7	Letter Agreement, dated December 7, 2022, by and among Granite Holdings I B.V., Granite Holdings II B.V., Granite US Holdings GP, LLC, Granite US Holdings LP, Granite Acquisition GmbH, Granite Canada Holdings Acquisition Corp., HowMex Holdings, S. de R.L. de C.V. and Chart Industries, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on December 9, 2022 (File No. 001-11442)).
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Amendment No. 5 to the Registrant's Registration Statement on Form S-1 (File No. 333-133254)).
3.2	Amended and Restated By-Laws, as amended (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on December 19, 2008 (File No. 001-11442)).
4.1	Form of Certificate (incorporated by reference to Exhibit 4.1 to Amendment No. 4 to the Registrant's Registration Statement on Form S-1 (File No. 333-133254)).
4.2	Indenture, dated as of November 6, 2017, by and between Chart Industries, Inc. and Wells Fargo Bank, National Association (including the form of the 1.00% Convertible Senior Subordinated Notes due 2024) (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
4.2.1	First Supplemental Indenture, dated as of December 31, 2020, to the Indenture, dated November 6, 2017 by and among Chart Industries, Inc. and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on January 6, 2021 (File No. 001-11442)).
4.3	Description of Securities (x)

- 4.4 [Certificate of Designations, filed with the Secretary of State of the State of Delaware and effective on December 13, 2022 \(incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 \(File No. 001-11442\)\).](#)
- 4.5 [Form of Certificate for the 6.75% Series B Mandatory Convertible Preferred Stock \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 \(File No. 001-11442\)\).](#)
- 4.6 [Deposit Agreement, dated as of December 13, 2022, among Chart Industries, Inc., Computershare Inc. and Computershare Trust Company, N.A., acting jointly as Depositary, and the holders from time to time of the depositary receipts described therein \(incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 \(File No. 001-11442\)\).](#)
- 4.7 [Form of Depositary Receipt for the Depositary Shares \(incorporated by reference to Exhibit 4.3 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 13, 2022 \(File No. 001-11442\)\).](#)
- 4.8 [Indenture, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto and U.S. Bank Trust Company, National Association, as trustee and as collateral agent \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 \(File No. 001-11442\)\).](#)
- 4.9 [Indenture, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto and U.S. Bank Trust Company, National Association, as trustee \(incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 \(File No. 001-11442\)\).](#)
- 4.10 [Form of 7.500% Senior Secured Notes due 2030 \(incorporated by reference to Exhibit 4.3 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 \(File No. 001-11442\)\).](#)
- 4.11 [Form of 9.500% Senior Notes due 2031 \(incorporated by reference to Exhibit 4.4 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 \(File No. 001-11442\)\).](#)
- 10.1 [Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan \(incorporated by reference to Appendix A to the Registrant's definitive proxy statement filed with the SEC on April 10, 2012 \(File No. 001-11442\)\).*](#)
- 10.1.1 [Amendment No. 1 to the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 \(File No. 001-11442\)\).*](#)
- 10.1.2 [Form of Nonqualified Stock Option Agreement \(2014 grants\) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.13 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 \(File No. 001-11442\)\).*](#)
- 10.1.3 [Form of Nonqualified Stock Option Agreement \(2015 grants\) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.16 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 \(File No. 001-11442\)\).*](#)
- 10.1.4 [Form of Nonqualified Stock Option Agreement \(2016 grants\) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.18 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015 \(File No. 001-11442\)\).*](#)
- 10.1.5 [Form of Nonqualified Stock Option Agreement \(2017 grants\) under the Chart Industries, Inc. Amended and Restated 2009 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.21 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2016 \(File No. 001-11442\)\).*](#)
- 10.2 [Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Appendix B to the Registrant's definitive proxy statement filed with the SEC on April 11, 2017 \(File No. 001-11442\)\).*](#)
- 10.2.1 [Form of Nonqualified Stock Option Agreement \(2018 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.25 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 \(File No. 001-11442\)\).*](#)
- 10.2.2 [Form of Performance Unit Agreement \(2018 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.26 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 \(File No. 001-11442\)\).*](#)
- 10.2.3 [Form of Restricted Share Unit Agreement \(2018 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.27 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 \(File No. 001-11442\)\).*](#)
- 10.2.4 [Form of Stock Award Agreement and Deferral Election Form \(for eligible directors\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.3.4 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 \(File No. 001-11442\)\).*](#)

- 10.2.5 [Form of Nongqualified Stock Option Agreement \(2019 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.3.5 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 \(File No. 001-11442\)\).*](#)
- 10.2.6 [Form of Performance Unit Agreement \(2019 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.3.6 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 \(File No. 001-11442\)\).*](#)
- 10.2.7 [Form of Restricted Share Unit Agreement \(2019 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.3.7 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 \(File No. 001-11442\)\).*](#)
- 10.2.8 [Form of Restricted Share Unit Agreement \(2018 Evanko Grant\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.3.8 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 \(File No. 001-11442\)\).*](#)
- 10.2.9 [Form of Nongqualified Stock Option Agreement \(2020 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.2.9 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2019 \(File No. 001-11442\)\).*](#)
- 10.2.10 [Form of Performance Unit Agreement \(2020 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.2.10 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2019 \(File No. 001-11442\)\).*](#)
- 10.2.11 [Form of Restricted Share Unit Agreement \(2020 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.2.11 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2019 \(File No. 001-11442\)\).*](#)
- 10.2.12 [Form of Nongqualified Stock Option Agreement \(2021 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.2.13 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020 \(File No. 001-11442\)\).*](#)
- 10.2.13 [Form of Performance Unit Agreement \(2021 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.2.14 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020 \(File No. 001-11442\)\).*](#)
- 10.2.14 [Form of Restricted Share Unit Agreement \(2021 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. \(incorporated by reference to Exhibit 10.2.15 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2020 \(File No. 001-11442\)\)\).*](#)
- 10.2.15 [Form of Nongqualified Stock Option Agreement \(2022 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.2.15 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2021 \(File No. 001-11442\)\).*](#)
- 10.2.16 [Form of Performance Unit Agreement \(2022 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.2.16 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2021 \(File No. 001-11442\)\).*](#)
- 10.2.17 [Form of Restricted Share Unit Agreement \(2022 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.2.17 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2021 \(File No. 001-11442\)\).*](#)
- 10.2.18 [Form of Nongqualified Stock Option Agreement \(2023 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. Plan \(incorporated by reference to Exhibit 10.2.18 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2022 \(File No. 001-11442\)\).* \(x\)](#)
- 10.2.19 [Form of Performance Unit Agreement \(2023 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan. Plan \(incorporated by reference to Exhibit 10.2.19 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2022 \(File No. 001-11442\)\).* \(x\)](#)
- 10.2.20 [Form of Restricted Share Unit Agreement \(2023 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan \(incorporated by reference to Exhibit 10.2.20 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2022 \(File No. 001-11442\)\).*](#)
- 10.2.21 [Form of Nongqualified Stock Option Agreement \(2024 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan.* \(x\)](#)
- 10.2.22 [Form of Performance Unit Agreement \(2024 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan.* \(x\)](#)
- 10.2.23 [Form of Restricted Share Unit Agreement \(2024 grants\) under the Chart Industries, Inc. 2017 Omnibus Equity Plan.* \(x\)](#)
- 10.3 [Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan \(incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on June 28, 2010 \(File No. 001-11442\)\).*](#)
- 10.3.1 [Amendment No. 1 to the Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan \(incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 \(File No. 001-11442\)\).*](#)
- 10.3.2 [Amendment No. 2 to the Amended and Restated Chart Industries, Inc. Voluntary Deferred Income Plan \(incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed with the SEC on July 14, 2016 \(File No. 001-11442\)\).*](#)

10.4		Chart Industries, Inc. Cash Incentive Plan (incorporated by reference to Appendix A to the Registrant's definitive proxy statement filed with the SEC on April 8, 2014 (File No. 001-11442)).*
10.5		Chart Industries, Inc. Cash Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on March 29, 2019 (File No. 001-11442)).*
10.6		Amended and Restated Employment Agreement, dated effective June 12, 2018, by and between Chart Industries, Inc. and Jillian C. Evanko (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on July 10, 2018 (File No. 001-11442)).*
10.7		Employment Agreement, dated October 26, 2017, by and between Chart Industries, Inc. and Gerald F. Vinci (incorporated by reference to Exhibit 10.14 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-11442)).*
10.8		Amended and Restated Severance Agreement, dated effective October 1, 2021, by and between Chart Industries, Inc. and Joe Brinkman (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
10.9		Employment Agreement, dated March 26, 2019, by and between Chart Industries, Inc. and Herbert G. Hotchkiss (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (File No. 001-11442)).*
10.10		Retention Agreement, dated effective December 23, 2019, by and between Chart Energy & Chemicals, Inc. and Douglas Ducote, Jr. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (File No. 001-11442)).*
10.11		Agreement of Retirement and Release Agreement, effective October 1, 2021, by and between Chart Industries, Inc. and Scott Merkle (incorporated by reference to Exhibit 10.10 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-11442)).*
10.12		Form of Indemnification Agreement (incorporated by reference to Exhibit 10.20 to the Registrant's Registration Statement on Form S-1 (File No. 333-133254)).
10.13	10.12	Base Call Option Transaction Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.1	10.13.1	Base Warrants Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.2	10.13.2	Base Call Option Transaction Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 6, 2017 (File No. 001-11442)).
10.14.3	10.13.3	Base Warrants Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.4	10.13.4	Base Call Option Transaction Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.5	10.13.5	Base Warrants Confirmation, dated October 31, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.6	10.13.6	Additional Call Option Transaction Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.7 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.7	10.13.7	Additional Warrants Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Morgan Stanley & Co. International plc (incorporated by reference to Exhibit 10.8 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.8	10.13.8	Additional Call Option Transaction Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.9 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).
10.14.9	10.13.9	Additional Warrants Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to Exhibit 10.10 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).

10.14.10	10.13.10	<u>Additional Call Option Transaction Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.11 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).</u>
10.14.11	10.13.11	<u>Additional Warrants Confirmation, dated November 1, 2017, by and between Chart Industries, Inc. and Bank of America, N.A. (incorporated by reference to Exhibit 10.12 to the Registrant's Current Report on Form 8-K filed with the SEC on November 6, 2017 (File No. 001-11442)).</u>
10.15	10.14	<u>Fifth Amended and Restated Credit Agreement, dated as of October 18, 2021, by and among Chart Industries, Inc., Chart Industries Luxembourg S.à.r.l., Chart Asia Investment Company Limited, the other foreign borrowers from time to time party thereto, the lenders from time to time party thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on October 21, 2021 (File No. 001-11442)).</u>
10.16	10.15	<u>Amendment No. 1, dated as of November 21, 2022, to the Credit Agreement, dated as of October 18, 2021, by and among Chart Industries, Inc., the subsidiaries of Chart Industries, Inc. designated as borrowers from time to time thereunder, the lenders named therein, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 22, 2022 (File No. 001-11442)).</u>
10.16		<u>Amendment No. 2, dated as of March 16, 2023, to the Credit Agreement, dated as of October 18, 2021, by and among Chart Industries, Inc., the subsidiaries of Chart Industries, Inc. designated as borrowers from time to time thereunder, the lenders named therein, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on March 17, 2023 (File No. 001-11442)).</u>
10.17		<u>Amendment No. 3, dated as of March 17, 2023, to the Credit Agreement, dated as of October 18, 2021, by and among Chart Industries, Inc., the subsidiaries of Chart Industries, Inc. designated as borrowers from time to time thereunder, the lenders named therein, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed with the SEC on March 17, 2023 (File No. 001-11442)).</u>
10.18		<u>Amendment No. 4, dated as of June 30, 2023, which amends that certain Fifth Amended and Restated Credit Agreement, dated as of October 18, 2021 (as amended by Amendment No. 1, dated as of November 21, 2022, Amendment No. 2, dated as of March 16, 2023, Amendment No. 3, dated as of March 17, 2023, and as otherwise amended, restated, supplemented or otherwise modified prior to the date hereof), by and among Chart Industries, Inc., the direct or indirect subsidiaries of Chart Industries, Inc. designated as borrowers from time to time thereunder, the lenders named therein, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on June 30, 2023 (File No. 001-11442)).</u>

10.19	Amendment No. 5, dated as of October 2, 2023, which amends that certain Fifth Amended and Restated Credit Agreement, dated as of October 18, 2021 (as amended by Amendment No. 1, dated as of November 21, 2022, Amendment No. 2, dated as of March 16, 2023, Amendment No. 3, dated as of March 17, 2023, Amendment No. 4, dated as of June 30, 2023, and as otherwise amended, restated, supplemented or otherwise modified prior to the date hereof), by and among Chart Industries, Inc., the direct or indirect subsidiaries of Chart Industries, Inc. designated as borrowers from time to time thereunder, the lenders named therein, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., Fifth Third Bank, National Association, HSBC Bank USA, National Association, PNC Bank, National Association and Wells Fargo Bank, National Association, as Co-Syndication Agents, and BMO Harris Bank, N.A., Capital One, N.A., Citizens Bank, N.A., MUFG Union Bank, N.A. and Regions Bank, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on October 2, 2023 (File No. 001-11442)).
10.20	Letter Agreement dated May 30, 2003, by and between Chart Industries, Inc. and Mr. Joseph Belling (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on July 28, 2023 (File No. 001-11442)).
10.21	Co-Investment Agreement, dated as of September 7, 2021, by and among Chart Industries, Inc., ISO HTEC HoldCo Limited and ISO Blueprint Acquisitions Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on October 21, 2021 (File No. 001-11442)).
10.18 10.22	Collateral Agreement, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto and U.S. Bank Trust Company, National Association, as collateral agent (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
10.19 10.23	Intercreditor Agreement, dated as of December 22, 2022, by and among Chart Industries, Inc., the subsidiary guarantors party thereto, U.S. Bank Trust Company, National Association, as collateral agent for the secured notes, and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent under the credit agreement (incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 22, 2022 (File No. 001-11442)).
21.1	List of Subsidiaries. (x)
23.1	Consent of Independent Registered Public Accounting Firm - Deloitte & Touche. (x)
31.1	Rule 13a-14(a) Certification of the Company's Chief Executive Officer and President. (x)
31.2	Rule 13a-14(a) Certification of the Company's Vice President and Chief Financial Officer. (x)
32.1	Section 1350 Certification of the Company's Chief Executive Officer and President. (xx)
32.2	Section 1350 Certification of the Company's Vice President and Chief Financial Officer. (xx)
97.1	Chart Industries, Inc. Incentive-Based Compensation Clawback Policy (x)
101.INS	XBRL Instance Document (x)
101.SCH	XBRL Taxonomy Extension Schema Document (x)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document (x)
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document (x)
101.LAB	XBRL Taxonomy Extension Label Linkbase Document (x)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document (x)

(x) Filed herewith.

(xx) Furnished herewith.

* Management contract or compensatory plan or arrangement.

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

E-5 E-6

Exhibit 4.3

Exhibit 10.2.18 DESCRIPTION OF CAPITAL STOCK

The following description of the capital stock of Chart Industries, Inc. (the "Company") does not purport to be complete and is subject to and qualified in its entirety by reference to the Company's Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and the Company's Amended and Restated By-Laws (the "Bylaws").

The Company's authorized capital stock consists of 160,000,000 shares, of which 150,000,000 shares are common stock, par value \$0.01 per share (the "Common Stock"), and 10,000,000 shares are preferred stock, par value \$0.01 per share (the "Preferred Stock"). The Common Stock is listed on the New York Stock Exchange under the symbol "GTLS."

Common Stock

Voting Rights. Holders of Common Stock are entitled to one vote per share on all matters to be voted upon by the Company's stockholders. The holders of Common Stock do not have cumulative voting rights in the election of directors.

Dividend Rights. Subject to the rights of the holders of any Preferred Stock that may be outstanding, holders of Common Stock are entitled to receive and to share equally and ratably, share for share dividends as may be declared by the Company's board of directors (the "Board") out of funds legally available to pay dividends. Dividends upon Common Stock may be declared by the Board out of funds legally available to pay dividends at any regular or special meeting, and may be paid in cash, in property, or in shares of capital stock. Before payment of any dividend, there may be set aside out of any of the Company's funds available for dividends, such sums as the Board deems proper as reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any of the Company's property, or for any proper purpose, and the Board may modify or abolish any such reserve. The Company's senior secured credit facility imposes, and the terms of any instruments or agreements governing the Company's future indebtedness may impose, restrictions on the Company's ability to declare dividends with respect to Common Stock.

Liquidation Rights. Upon liquidation, dissolution, distribution of assets or other winding up, the holders of Common Stock are entitled to receive ratably the assets available for distribution to the stockholders after payment of liabilities and the liquidation preference of any of the Company's outstanding Preferred Stock. Neither a sale of substantially all of the property and assets of the Company nor a consolidation or merger of the Company into another corporation shall be deemed a liquidation of the Company.

Other Matters. The Common Stock has no preemptive or conversion rights and is not subject to further calls or assessment by the Company. There are no redemption or sinking fund provisions applicable to the Common Stock.

Preferred Stock

The Certificate of Incorporation authorizes the Board to establish one or more series of Preferred Stock and to determine, with respect to any series of Preferred Stock, the terms and rights of that series, including:

- the designation of such series;
- the number of shares to constitute such series;
- the voting powers and rights (if any) of the shares of such series;
- if such series has voting rights, whether or not such series is to be entitled to vote as a separate class either alone or together with the holders of Common Stock or one or more other series of Preferred Stock;
- the preferences and relative, participating, optional, conversion or other special rights (if any) of such series and the qualifications, limitations or restrictions (if any) with respect to such series;
- the redemption rights and price(s), if any, of such series, and whether or not the shares of such series shall be subject to the operation of retirement or sinking funds to be applied to the purchase or redemption of such shares for retirement and, if such retirement or sinking fund or funds are to be established, the periodic amount thereof and the terms and provisions relative to the operation thereof;

- the dividend rights and preferences (if any) of such series, including, without limitation, (A) the rates of dividends payable thereon, (B) the conditions upon which and the time when such dividends are payable, (C) whether or not such dividends shall be cumulative or noncumulative and, if cumulative, the date or dates from which such dividends shall accumulate and (D) whether or not the payment of such dividends shall be preferred to the payment of dividends payable on Common Stock or any other series of Preferred Stock;
- the preferences and special rights (if any), and the amounts thereof, which the holders of such series shall be entitled to receive upon the voluntary or involuntary liquidation, dissolution or winding-up of, or upon any distribution of the assets of, the Company;
- whether or not the shares of such series, at the option of the Company or the holders thereof or upon the happening of any specified event, shall be convertible into or exchangeable for (A) shares of Common Stock, (B) shares of any other series of Preferred Stock or (C) any other stock or securities of the Company or any other corporation;
- if such series is to be convertible or exchangeable, the price or prices or ratio or ratios or rate or rates at which such conversion or exchange may be made and the terms and conditions (if any) upon which such price or prices or ratio or ratios or rate or rates may be adjusted; and

- such other rights, powers and preferences with respect to the series as Board may deem advisable.

The Board may authorize the issuance of Preferred Stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Common Stock. Additionally, the issuance of Preferred Stock may have the effect of decreasing the market price of the Common Stock.

6.75% Series B Mandatory Convertible Preferred Stock

On December 13, 2022, the Company issued 8,050,000 Depositary Shares (the "Depositary Shares") each representing a 1/20th interest in a share of the Company's 6.75% Series B Mandatory Convertible Preferred Stock (the "Mandatory Convertible Preferred Stock"). The Mandatory Convertible Preferred Stock is, and any Common Stock issued upon the conversion of the Mandatory Convertible Preferred Stock will be, fully paid and nonassessable. The holders of the Mandatory Convertible Preferred Stock have no preemptive or preferential rights to purchase or subscribe to stock, obligations, warrants or other securities of the Company of any class. Computershare Trust Company, N.A. is the transfer agent and registrar serves as the transfer agent, registrar, conversion and dividend disbursing agent for the Mandatory Convertible Preferred Stock.

The Mandatory Convertible Preferred Stock is not listed on any securities exchange or any automated dealer quotation system, but the Depositary Shares are listed on the New York Stock Exchange.

Ranking

The Mandatory Convertible Preferred Stock, with respect to dividend rights and/or rights upon the Company's liquidation, winding-up or dissolution, as applicable, ranks:

- senior to (i) the Common Stock and (ii) each other class or series of capital stock issued after the initial issue date the terms of which do not expressly provide that such capital stock ranks either (x) senior to the Mandatory Convertible Preferred Stock as to dividend rights or rights upon the Company's liquidation, winding-up or dissolution or (y) on a parity with the Mandatory Convertible Preferred Stock as to dividend rights and rights upon the Company's liquidation, winding-up or dissolution (collectively referred to as "junior stock")
- on a parity with any class or series of capital stock issued after the initial issue date the terms of which expressly provide that such capital stock will rank on a parity with the Mandatory Convertible Preferred Stock as to dividend rights and rights upon the Company's liquidation, winding-up or dissolution (collectively referred to as "parity stock");

2

- junior to (i) the Series A Preferred Stock, if issued, and (ii) each other class or series of capital stock issued after the initial issue date the terms of which expressly provide that such capital stock will rank senior to the Mandatory Convertible Preferred Stock as to dividend rights or rights upon the Company's liquidation, winding-up or dissolution (collectively referred to as "senior stock"); and
- junior to the Company's existing and future indebtedness.

In addition, the Mandatory Convertible Preferred Stock, with respect to dividend rights and rights upon the Company's liquidation, winding-up or dissolution, will be structurally subordinated to existing and future indebtedness of the Company's subsidiaries as well as the capital stock of the Company's subsidiaries held by third parties.

Dividends

Subject to the rights of holders of any class of capital stock ranking senior to the Mandatory Convertible Preferred Stock with respect to dividends, including the Series A Preferred Stock (if issued), holders of shares of Mandatory Convertible Preferred Stock will be entitled to receive, when, as and if declared by the Board, or an authorized committee thereof, out of funds legally available for payment, cumulative dividends at the rate per annum of 6.75% on the liquidation preference of \$1,000 per share of Mandatory Convertible Preferred Stock (equivalent to \$67.50 per annum per share), payable in cash, by delivery of shares of the Common Stock or through any combination of cash and shares of the Common Stock, as determined by the Board in its sole discretion (subject to the limitations described below). See "—Method of Payment of Dividends." Declared dividends on the Mandatory Convertible Preferred Stock will be payable quarterly on March 15, June 15, September 15 and December 15 of each year to, and including, December 15, 2025, commencing on, and including, March 15, 2023 (each, a "dividend payment date"), at such annual rate, and dividends shall accumulate from the most recent date as to which dividends shall have been paid or, if no dividends have been paid, from the initial issue date of the Mandatory Convertible Preferred Stock, whether or not in any dividend period or periods there have been funds legally available for the payment of such dividends. Declared dividends will be payable on the relevant dividend payment date to holders of record as they appear on the Company's stock register at 5:00 p.m., New York City time, on the March 1, June 1, September 1 or December 1, as the case may be, immediately preceding the relevant dividend payment date (each, a "record date"), whether or not such holders convert their shares, or such shares are automatically converted, after a record date and on or prior to the immediately succeeding dividend payment date. These record dates will apply regardless of whether a particular record date is a business day. A "business day" means any day other than a Saturday or Sunday or other day on which commercial banks in New York City are authorized or required by law or executive order to close. If a dividend payment date is not a business day, payment will be made on the next succeeding business day, without any interest or other payment in lieu of interest accruing with respect to this delay.

A full dividend period is the period from, and including, a dividend payment date to, but excluding, the next dividend payment date, except that the initial dividend period will commence on, and include, the initial issue date of the Mandatory Convertible Preferred Stock and will end on, and exclude, the March 15, 2023 dividend payment date. The amount of dividends payable on each share of Mandatory Convertible Preferred Stock for each full dividend period (after the initial dividend period) will be computed by dividing the

annual dividend rate by four. Dividends payable on the Mandatory Convertible Preferred Stock for the initial dividend period and any partial dividend period will be computed based upon the actual number of days elapsed during the period over a 360-day year (consisting of twelve 30-day months). Accordingly, the dividend on the Mandatory Convertible Preferred Stock for the first dividend period will be approximately \$17.25 per share (based on the annual dividend rate of 6.75% and a liquidation preference of \$1,000 per share) and will be payable, when, as and if declared, on March 15, 2023. The dividend on the Mandatory Convertible Preferred Stock for each subsequent full dividend period, when, as and if declared, will be approximately \$16.875 per share (based on the annual dividend rate of 6.75% and a liquidation preference of \$1,000 per share). Accumulated dividends will not bear interest if they are paid subsequent to the applicable dividend payment date.

No dividend will be declared or paid upon, or any sum or number of shares of Common Stock set apart for the payment of dividends upon, any outstanding share of the Mandatory Convertible Preferred Stock with respect to any dividend period unless all dividends for all preceding dividend periods have been declared and paid upon, or a sufficient sum or number of shares of Common Stock have been set apart for the payment of such dividends upon, all outstanding shares of Mandatory Convertible Preferred Stock.

The Company's ability to declare and pay cash dividends and make other distributions with respect to the Company's capital stock, including the Mandatory Convertible Preferred Stock, is limited by the terms of the

Company's existing indebtedness and may be limited by the terms of any future indebtedness. In addition, the Company's ability to declare and pay dividends may be limited by applicable Delaware law.

So long as any share of the Mandatory Convertible Preferred Stock remains outstanding, no dividend or distribution shall be declared or paid on the Common Stock or any other shares of junior stock, and no Common Stock or other junior stock or parity stock shall be, directly or indirectly, purchased, redeemed or otherwise acquired for consideration by the Company or any of the Company's subsidiaries unless all accumulated and unpaid dividends for all preceding dividend periods have been declared and paid upon, or a sufficient sum or number of shares of Common Stock have been set apart for the payment of such dividends upon, all outstanding shares of Mandatory Convertible Preferred Stock. The foregoing limitation shall not apply to: (i) a dividend payable on any Common Stock or other junior stock in shares of any Common Stock or other junior stock; (ii) the acquisition of shares of any Common Stock or other junior stock in exchange for, or a purchase, redemption or other acquisition for value of shares of any Common Stock or other junior stock with the proceeds of a substantially concurrent sale of, shares of any Common Stock or other junior stock and the payment of cash in lieu of any fractional share; (iii) purchases of fractional interests in shares of any Common Stock or other junior stock pursuant to the conversion or exchange provisions of such shares of other junior stock or any securities exchangeable for or convertible into such shares of Common Stock or other junior stock; (iv) redemptions, purchases or other acquisitions of shares of Common Stock or other junior stock in connection with any employment contract, benefit plan or other similar arrangement with or for the benefit of any one or more of the Company's or its subsidiaries' employees, officers, directors, consultants or independent contractors, including, without limitation, the forfeiture of unvested shares of restricted stock or share withholdings upon exercise, delivery or vesting of equity awards and the payment of cash in lieu of any fractional share; (v) any dividends or distributions of rights or Common Stock or other junior stock in connection with a stockholders' rights plan or any redemption or repurchase of rights pursuant to any stockholders' rights plan, and the payment of cash in lieu of fractional shares; (vi) purchases of junior stock pursuant to a binding contract (including a stock repurchase plan) to make such purchases, if such contract was in effect before the initial issue date; (vii) the acquisition by the Company or any of the Company's subsidiaries of record ownership in Common Stock or other junior stock or parity stock on behalf of any other persons (other than the Company or any of the Company's subsidiaries) that is a beneficial owner thereof, including as trustees or custodians; (viii) the exchange or conversion or reclassification of junior stock for or into other junior stock or of parity stock for or into other parity stock (with the same or lesser aggregate liquidation preference) and the payment of cash in lieu of fractional shares; or (ix) the settlement of any convertible note hedge transactions or capped call transactions entered into in connection with the issuance, by the Company or any of the Company's subsidiaries, of any debt securities that are convertible into, or exchangeable for, the Common Stock (or into or for any combination of cash and the Common Stock based on the value of the Common Stock), provided such convertible note hedge transactions or capped call transactions, as applicable, are on customary terms and were entered into either (x) before the initial issue date or (y) in compliance with the foregoing provision.

When dividends on shares of the Mandatory Convertible Preferred Stock have not been paid in full on any dividend payment date or declared and a sum or number of shares of Common Stock sufficient for payment thereof set aside for the benefit of the holders thereof on the applicable record date, no dividends may be declared or paid on any parity stock unless dividends are declared on the Mandatory Convertible Preferred Stock such that the respective amounts of such dividends declared on the Mandatory Convertible Preferred Stock and each such other class or series of parity stock shall bear the same ratio to each other as all accumulated and unpaid dividends per share on the shares of the Mandatory Convertible Preferred Stock and such class or series of parity stock (which dollar amount will, if dividends on such class or series of parity stock are not cumulative, be the full amount of dividends per share thereof in respect of the most recent dividend period thereof) (subject to their having been declared by the Board, or an authorized committee thereof, out of legally available funds) bear to each other immediately prior to the payment of such dividends, in proportion to their respective liquidation preferences; *provided* that any unpaid dividends will continue to accumulate.

For the avoidance of doubt, the provisions described in this section will not prohibit or restrict the payment or other acquisition for value of any debt securities that are convertible into, or exchangeable for, any junior stock.

Subject to the foregoing, and not otherwise, such dividends (payable in cash, securities or other property) as may be determined by the Board, or an authorized committee thereof, may be declared and paid on any securities, including Common Stock and other junior stock, from time to time out of any funds legally available for such payment, and holders of the Mandatory Convertible Preferred Stock shall not be entitled to participate in any such dividends.

If the Company (or an applicable withholding agent) is required to withhold on distributions of Common Stock to a holder and pay the applicable withholding taxes, the Company may, at its option, or an applicable withholding agent may, withhold such taxes from payments of cash or shares of Common Stock payable to such holder.

Method of Payment of Dividends

Subject to the limitations described below, the Company may pay any declared dividend (or any portion of any declared dividend) on the Mandatory Convertible Preferred Stock (whether or not for a current dividend period or any prior dividend period), as determined by the Board in its sole discretion:

- by paying cash;
- by delivering shares of Common Stock; or
- through any combination of paying cash and delivering shares of Common Stock.

The Company will make each payment of a declared dividend on the Mandatory Convertible Preferred Stock in cash, except to the extent the Company elects to make all or any portion of such payment in shares of Common Stock. The Company will give the holders of the Mandatory Convertible Preferred Stock notice of any such election, and the portion of such payment that will be made in cash and the portion that will be made in Common Stock, on the earlier of the date the Company declares such dividend and the tenth scheduled trading day (as defined below) immediately preceding the dividend payment date for such dividend.

No Redemption

The Company may not redeem the Mandatory Convertible Preferred Stock. However, at the Company's option, the Company may purchase the Mandatory Convertible Preferred Stock or Depositary Shares from time to time in the open market, by tender offer, exchange offer or otherwise.

Liquidation Preference

In the event of the Company's voluntary or involuntary liquidation, winding-up or dissolution, each holder of Mandatory Convertible Preferred Stock will be entitled to receive a liquidation preference in the amount of \$1,000 per share of the Mandatory Convertible Preferred Stock (the "liquidation preference"), plus an amount equal to accumulated and unpaid dividends on the shares to, but excluding, the date fixed for liquidation, winding-up or dissolution to be paid out of the Company's assets available for distribution to the Company's stockholders, after satisfaction of liabilities to the Company's creditors and holders of any senior stock (including the Series A Preferred Stock, if issued) and before any payment or distribution is made to holders of junior stock (including Common Stock). If, upon the Company's voluntary or involuntary liquidation, winding-up or dissolution, the amounts payable with respect to the liquidation preference, plus an amount equal to accumulated and unpaid dividends of the Mandatory Convertible Preferred Stock and all parity stock are not paid in full, the holders of the Mandatory Convertible Preferred Stock and any parity stock will share equally and ratably in any distribution of the Company's assets in proportion to the respective liquidation preferences and amounts equal to accumulated and unpaid dividends to which they are entitled. After payment of the full amount of the liquidation preference and an amount equal to accumulated and unpaid dividends to which they are entitled, the holders of the Mandatory Convertible Preferred Stock will have no right or claim to any of the Company's remaining assets.

Neither the sale of all or substantially all of the Company's assets or business (other than in connection with the Company's liquidation, winding-up or dissolution), nor the Company's merger or consolidation into or with any other person, will be deemed to be the Company's voluntary or involuntary liquidation, winding-up or dissolution.

The certificate of designations for the Mandatory Convertible Preferred Stock does not contain any provision requiring funds to be set aside to protect the liquidation preference of the Mandatory Convertible Preferred Stock even though it is substantially in excess of the par value thereof.

Voting Rights

The holders of the Mandatory Convertible Preferred Stock do not have voting rights other than those described below, except as specifically required by Delaware law.

Whenever dividends on any shares of Mandatory Convertible Preferred Stock have not been declared and paid for the equivalent of six or more dividend periods (including, for the avoidance of doubt, the dividend period beginning on, and including, the initial issue date and ending on, but excluding, March 15, 2023), whether or not for consecutive dividend periods (a "nonpayment"), the holders of such shares of Mandatory Convertible Preferred Stock, voting together as a single class with holders of any and all other series of voting preferred stock (as defined below) then outstanding, will be entitled at the Company's next special or annual meeting of stockholders to vote for

the election of a total of two additional members of the Board (the “preferred stock directors”); *provided* that the election of any such directors will not cause the Company to violate the corporate governance requirements of the New York Stock Exchange (or any other exchange or automated quotation system on which the Company’s securities may be listed or quoted) that requires listed or quoted companies to have a majority of independent directors; *provided further* that the Board shall at no time include more than two preferred stock directors. In the event of a nonpayment, the Company will increase the number of directors on the Board by two, and the new directors will be elected at an annual or special meeting of stockholders called by the Board, subject to its fiduciary duties, at the request of the holders of at least 25% of the shares of Mandatory Convertible Preferred Stock or of any other series of voting preferred stock (*provided* that if such request is not received at least 90 calendar days before the date fixed for the next annual or special meeting of the stockholders, such election shall be held at such next annual or special meeting of stockholders), and at each subsequent annual meeting, so long as the holders of Mandatory Convertible Preferred Stock continue to have such voting rights.

As used herein, “voting preferred stock” means any other class or series of parity stock upon which like voting rights have been conferred and are exercisable. Whether a plurality, majority or other portion of the Mandatory Convertible Preferred Stock and any other voting preferred stock have been voted in favor of any matter shall be determined by reference to the respective liquidation preference amounts of the Mandatory Convertible Preferred Stock and such other voting preferred stock voted.

If and when all accumulated and unpaid dividends have been paid in full, or declared and a sum sufficient for such payment shall have been set aside (a “nonpayment remedy”), the holders of Mandatory Convertible Preferred Stock shall immediately and, without any further action by the Company, be divested of the foregoing voting rights, subject to the revesting of such rights in the event of each subsequent nonpayment. If such voting rights for the holders of Mandatory Convertible Preferred Stock and all other holders of voting preferred stock have terminated, the term of office of each preferred stock director so elected will terminate at such time and the number of directors on the Board shall automatically decrease by two.

Any preferred stock director may be removed at any time with or without cause by the holders of record of a majority of the outstanding shares of Mandatory Convertible Preferred Stock and any other shares of voting preferred stock then outstanding (voting together as a class) when they have the voting rights described above. In the event that a nonpayment shall have occurred and there shall not have been a nonpayment remedy, any vacancy in the office of a preferred stock director (other than prior to the initial election after a nonpayment) may be filled by the written consent of the preferred stock director remaining in office or, if none remains in office, by a vote of the holders of record of a majority of the outstanding shares of Mandatory Convertible Preferred Stock and any other shares of voting preferred stock then outstanding (voting together as a class) when they have the voting rights described above; *provided* that the filling of each vacancy will not cause the Company to violate the corporate governance requirements of the New York Stock Exchange (or any other exchange or automated quotation system on which the Company’s securities may be listed or quoted) that requires listed or quoted companies to have a majority of independent directors.

So long as any shares of Mandatory Convertible Preferred Stock remain outstanding, the Company will not, without the affirmative vote or consent of the holders of at least two-thirds of the outstanding shares of Mandatory Convertible Preferred Stock given in person or by proxy, either in writing or at a meeting:

- authorize or create, or increase the authorized amount of, any senior stock except for the authorization and creation of the shares of Series A Preferred Stock issued in partial payment of the purchase price for the Company’s proposed acquisition of the business of Howden (the “Acquisition”) or in connection with any proposed amendments to the terms thereof; or
- amend, alter or repeal the provisions of the Certificate of Incorporation or the certificate of designations for the shares of Mandatory Convertible Preferred Stock so as to materially and adversely affect the rights, preferences, privileges or voting powers of the shares of Mandatory Convertible Preferred Stock; or

- consummate a binding share exchange or reclassification involving the shares of Mandatory Convertible Preferred Stock or a merger or consolidation of the Company with another entity, unless either (i) the shares of Mandatory Convertible Preferred Stock remain outstanding and have rights, preferences, privileges and voting powers, taken as a whole, that are no less favorable to the holders thereof in any material respect than the rights, preferences, privileges and voting powers of the Mandatory Convertible Preferred Stock immediately prior to such consummation, taken as a whole, or (ii) in the case of any such merger or consolidation with respect to which the Company is not the surviving or resulting entity, the shares of Mandatory Convertible Preferred Stock are converted into or exchanged for preference securities of the surviving or resulting entity or its ultimate parent, and such preference securities have rights, preferences, privileges and voting powers, taken as a whole, that are no less favorable to the holders thereof in any material respect than the rights, preferences, privileges and voting powers of the Mandatory Convertible Preferred Stock immediately prior to such consummation, taken as a whole;

provided, however, that (1) any increase in the amount of the Company’s authorized but unissued shares of preferred stock, (2) any increase in the authorized or issued shares of Mandatory Convertible Preferred Stock, (3) the creation and issuance of shares of Series A Preferred Stock in partial payment of the purchase price for the Acquisition or in connection with any proposed amendments to the terms thereof, (4) the creation and issuance, or an increase in the authorized or issued amount, of any series of junior stock or any other series of parity stock and (5) the application of the provisions described below under the caption “—Recapitalizations, Reclassifications and Changes in the the Common Stock,” will in each case be deemed not to materially and adversely affect the rights, preferences, privileges or voting powers of the Mandatory Convertible Preferred Stock and shall not require the affirmative vote or consent of holders of the Mandatory Convertible Preferred Stock.

Without the consent of the holders of the Mandatory Convertible Preferred Stock, the Company may amend, alter, supplement, or repeal any terms of the Mandatory Convertible Preferred Stock by amending or supplementing the Certificate of Incorporation, the certificate of designations or any certificate representing the Mandatory Convertible Preferred Stock for the following purposes:

- to cure any ambiguity, omission, inconsistency or mistake in any such agreement or instrument;
- to make any provision with respect to matters or questions relating to the Mandatory Convertible Preferred Stock that is not inconsistent with the provisions of the certificate of designations for the Mandatory Convertible Preferred Stock and that does not materially and adversely affect the rights of any holder of the Mandatory Convertible Preferred Stock; or
- to make any other change that does not materially and adversely affect the rights of any holder of the Mandatory Convertible Preferred Stock (other than any holder that consents to such change).

Mandatory Conversion

Each outstanding share of the Mandatory Convertible Preferred Stock, unless previously converted, will automatically convert on the mandatory conversion date, into a number of shares of Common Stock equal to the conversion rate described below. If the Company declares a dividend for the dividend period ending on December 15, 2025, the Company will pay such dividend to the holders of record as of December 1, 2025, as described above under “—Dividends.” If on or prior to December 1, 2025 the Company has not declared all or any portion of all accumulated and unpaid dividends on the Mandatory Convertible Preferred Stock through December 15, 2025, the conversion rate will be adjusted so that holders receive an additional number of shares of Common Stock equal to the amount of accumulated and unpaid dividends that have not been declared (the “additional conversion amount”), *divided by* the greater of (i) the floor price and (ii) 97% of the five-day average price (calculated as if the applicable dividend payment date were December 15, 2025). To the extent that the additional conversion amount exceeds the product of such number of additional shares and 97% of such five-day average price, the Company will, if the Company is legally able to do so, pay such excess amount in cash pro rata to the holders of the Mandatory Convertible Preferred Stock.

7

The conversion rate, which is the number of shares of Common Stock issuable upon conversion of each share of Mandatory Convertible Preferred Stock on the mandatory conversion date (excluding any shares of Common Stock issued in respect of accumulated but unpaid dividends, if any), will be as follows:

- if the applicable market value of Common Stock is greater than the “threshold appreciation price,” then the conversion rate will be 7.0520 shares of Common Stock per share of Mandatory Convertible Preferred Stock (the “minimum conversion rate”), which is approximately equal to \$1,000 *divided by* the threshold appreciation price;
- if the applicable market value of Common Stock is less than or equal to the threshold appreciation price but equal to or greater than the “initial price,” then the conversion rate will be equal to \$1,000 *divided by* the applicable market value of Common Stock, rounded to the nearest ten-thousandth of a share, which will be between 7.0520 and 8.4620 shares of Common Stock per share of Mandatory Convertible Preferred Stock; or
- if the applicable market value of Common Stock is less than the initial price, then the conversion rate will be 8.4620 shares of Common Stock per share of Mandatory Convertible Preferred Stock (the “maximum conversion rate”), which is approximately equal to \$1,000 *divided by* the initial price.

The “initial price” equals \$1,000, *divided by* the maximum conversion rate, rounded to the nearest \$0.0001, and is initially \$118.1754.

The “threshold appreciation price” equals \$1,000, *divided by* the minimum conversion rate, rounded to the nearest \$0.0001, and represents an approximately 20% appreciation over the initial price.

The minimum conversion rate and the maximum conversion rate are collectively referred to as the “fixed conversion rates.” The fixed conversion rates and the applicable market value are each subject to adjustment as described under “—Anti-dilution Adjustments” below.

Definitions

“applicable market value” means the average VWAP per share of Common Stock over the final averaging period.

“final averaging period” means the 20 consecutive trading day period beginning on, and including, the 21st scheduled trading day immediately preceding December 15, 2025.

“mandatory conversion date” means the second business day immediately following the last trading day of the final averaging period. The “mandatory conversion date” is expected to be December 15, 2025.

“market disruption event” means (i) a failure by the primary U.S. national or regional securities exchange or market on which the Common Stock is listed or admitted for trading to open for trading during its regular trading session or (ii) the occurrence or existence prior to 1:00 p.m., New York City time, on any scheduled trading day for the Common Stock for more than one half-hour period in the aggregate during regular trading hours of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise) in the Common Stock or in any options contracts or futures contracts relating to the Common stock.

A “scheduled trading day” is any day that is scheduled to be a trading day.

“trading day” means a day on which (i) there is no “market disruption event” (as defined below) and (ii) trading in the Common Stock generally occurs on the New York Stock Exchange or, if the Common Stock is not then listed on the New York Stock Exchange, on the principal other U.S. national or regional securities exchange on which the Common Stock is then listed or, if the Common Stock is not then listed on a U.S. national or regional securities exchange, on the principal other market on which the Common Stock is then listed or admitted for trading. If the Common Stock is not so listed or admitted for trading, “trading day” means a “business day.”

“VWAP” per share of Common Stock on any trading day means the per share volume-weighted average price as displayed on Bloomberg page “GTLS <Equity> AQR” (or its equivalent successor if such page is not available)

in respect of the period from 9:30 a.m. to 4:00 p.m., New York City time, on such trading day; or, if such price is not available, “VWAP” means the market value per share of the Common Stock on such trading day as determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained by the Company for this purpose. The “average VWAP” per share over a certain period means the arithmetic average of the VWAP per share for each trading day in such period.

Conversion at the Option of the Holder

Other than during a fundamental change conversion period (as defined below under “—Conversion at the Option of the Holder upon Fundamental Change; Fundamental Change Dividend Make-whole Amount”), holders of the Mandatory Convertible Preferred Stock have the right to convert their shares of Mandatory Convertible Preferred Stock, in whole or in part (but in no event less than one share of Mandatory Convertible Preferred Stock), at any time prior to December 15, 2025, into shares of Common Stock at the minimum conversion rate, subject to adjustment as described under “—Anti-dilution Adjustments” below.

If as of the effective date of any early conversion (the “early conversion date”), the Company has not declared all or any portion of the accumulated and unpaid dividends for all full dividend periods ending on or prior to the dividend payment date immediately preceding such early conversion date, the conversion rate will be adjusted so that converting holders receive an additional number of shares of Common Stock equal to such amount of accumulated and unpaid dividends that have not been declared for such full dividend periods (the “early conversion additional conversion amount”), divided by the greater of (i) the floor price and (ii) the average VWAP per share of Common Stock over the 20 consecutive trading day period ending on, and including, the second trading day immediately preceding the early conversion date (the “early conversion average price”). To the extent that the early conversion additional conversion amount exceeds the product of such number of additional shares and the early conversion average price, the Company will not have any obligation to pay the shortfall in cash.

Except as described in the immediately preceding paragraph, upon any optional conversion of any shares of the Mandatory Convertible Preferred Stock pursuant to this “—Conversion at the Option of the Holder” section, the Company will make no payment or allowance for unpaid dividends on such shares of the Mandatory Convertible Preferred Stock, unless such early conversion date occurs after the record date for a declared dividend and on or prior to the immediately succeeding dividend payment date, in which case such dividend will be paid on such dividend payment date to the holder of record of the converted shares as of such record date, as described under “—Dividends.”

Conversion at the Option of the Holder upon Fundamental Change; Fundamental Change Dividend Make-whole Amount

General

If a fundamental change (as defined below) occurs on or prior to December 15, 2025, holders of the Mandatory Convertible Preferred Stock will have the right (the “fundamental change early conversion right”) to: (i) convert their shares of Mandatory Convertible Preferred Stock, in whole or in part (but in no event less than one share of Mandatory Convertible Preferred Stock), into shares of Common Stock at the fundamental change conversion rate described below; (ii) with respect to such converted shares, receive an amount equal to the present value, calculated using a discount rate of 10.4% per annum, of all dividend payments on such shares (excluding any accumulated and unpaid dividends for any dividend period prior to the effective date of the fundamental change, including for the partial dividend period, if any, from, and including, the dividend payment date immediately preceding the effective date to, but excluding, the effective date (collectively, the “accumulated dividend amount”)) for all the remaining full dividend periods and for the partial dividend period from, and including, the effective date to, but excluding, the next dividend payment date (the “fundamental change dividend make-whole amount”); and (iii) with respect to such converted shares, to the extent that, as of the effective date of the fundamental change, there is any accumulated dividend amount, receive payment of the accumulated dividend amount (clauses (ii) and (iii), together, the “make-whole dividend amount”), in the case of clauses (ii) and (iii), subject to the Company’s right to deliver shares of Common Stock in lieu of all or part of such amounts as described under “—Make-whole dividend amount” below; provided that, if the effective date or the conversion date falls after the record date for a declared dividend and prior to the next dividend payment date, such dividend will be paid on such dividend payment date to the holders as of such record date, as described under “—Dividends,” such dividend will not be included in the accumulated dividend amount, and the fundamental change dividend make-whole amount will not include the present value of the payment of such dividend.

To exercise the fundamental change early conversion right, holders must submit their shares of the Mandatory Convertible Preferred Stock for conversion at any time during the period (the “fundamental change conversion period”) beginning on, and including, the effective date of such fundamental change (the “effective date”) and

ending at 5:00 p.m., New York City time, on the date that is the earlier of (a) 20 calendar days after the effective date (or, if later, the date that is 20 calendar days after holders receive notice of such fundamental change) and (b) December 15, 2025. For the avoidance of doubt, the fundamental change conversion period may not end on a date that is later than December 15, 2025. Holders of Mandatory Convertible Preferred Stock who submit their shares for conversion during the fundamental change conversion period will have such shares converted at the conversion rate specified in the table below (the "fundamental change conversion rate") and will be entitled to receive the make-whole dividend amount. Holders of Mandatory Convertible Preferred Stock who do not submit their shares for conversion during the fundamental change conversion period will not be entitled to convert their shares of Mandatory Convertible Preferred Stock at the fundamental change conversion rate or to receive the make-whole dividend amount.

The Company will notify holders of the effective date of a fundamental change no later than the second business day following such effective date.

A "fundamental change" will be deemed to have occurred at the time any of the following occurs after the initial issue date of the Mandatory Convertible Preferred Stock:

- (1) a "person" or "group" within the meaning of Section 13(d) of the Exchange Act, other than the Company, the Company's wholly owned subsidiaries and the Company's and their employee benefit or incentive plans, files a Schedule TO or any schedule, form or report under the Exchange Act disclosing that such person or group has become the direct or indirect "beneficial owner," as defined in Rule 13d-3 under the Exchange Act, of Common Stock representing more than 50% of the voting power of Common Stock or the Company otherwise becomes aware of such beneficial ownership;
- (2) the consummation of (A) any recapitalization, reclassification or change of Common Stock (other than a change only in par value or changes resulting from a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, or would represent solely the right to receive, stock, other securities, other property or assets (including cash); (B) any share exchange, consolidation or merger of the Company pursuant to which the Common Stock will be converted into, will be exchanged for, or will represent solely the right to receive, stock, other securities, other property or assets (including cash); or (C) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Company and its subsidiaries, taken as a whole, to any person other than one of the Company's wholly owned subsidiaries; or
- (3) Common Stock (or other Common Stock comprising all or part of the exchange property) ceases to be listed on any of the New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors).

A transaction or transactions described in clause (1) or clause (2) above will not constitute a fundamental change, however, if at least 90% of the consideration received or to be received by all of the Company's common stockholders, excluding cash payments for fractional shares or pursuant to dissenters' appraisal rights, in connection with such transaction or transactions consists of shares of Common Stock that are listed on any of the New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors) or will be so listed when issued or exchanged in connection with such transaction or transactions and as a result of such transaction or transactions the Mandatory Convertible Preferred Stock becomes convertible into or exchangeable for such consideration, excluding cash payments for fractional shares or pursuant to dissenters' appraisal rights.

If any transaction in which Common Stock is replaced by the securities of another entity occurs, following completion of any related fundamental change conversion period (or, if none, on the effective date of such transaction), references to the Company in the definition of "fundamental change" above shall instead be references to such other entity.

Fundamental change conversion rate

The fundamental change conversion rate will be determined by reference to the table below and is based on the effective date of the fundamental change and the price (the "stock price") paid (or deemed paid) per share of

10

Common Stock in such transaction. If all holders of Common Stock receive only cash in exchange for their Common Stock in the fundamental change, the stock price shall be the cash amount paid per share. Otherwise the stock price shall be the average VWAP per share of the Common Stock over the five consecutive trading day period ending on, and including, the trading day immediately preceding the effective date of the relevant fundamental change.

The stock prices set forth in the first row of the table (i.e., the column headers) will be adjusted as of any date on which the fixed conversion rates of the Mandatory Convertible Preferred Stock are adjusted. The adjusted stock prices will equal the stock prices applicable immediately prior to such adjustment, multiplied by a fraction, the numerator of which is the minimum conversion rate immediately prior to the adjustment giving rise to the stock price adjustment and the denominator of which is the minimum conversion rate as so

adjusted. Each of the fundamental change conversion rates in the table will be subject to adjustment in the same manner and at the same time as each fixed conversion rate as set forth under “—Anti-dilution Adjustments.”

The following table sets forth the fundamental change conversion rate per share of Mandatory Convertible Preferred Stock for each stock price and effective date set forth below.

Effective Date	Stock Price														
	\$60.00	\$70.00	\$80.00	\$90.00	\$100.00	\$118.18	\$130.00	\$141.80	\$160.00	\$170.00	\$180.00	\$190.00	\$200.00	\$210.00	\$220.00
December 13, 2022	7.6820	7.5860	7.5060	7.4380	7.3800	7.2980	7.2560	7.2220	7.1780	7.1580	7.1420	7.1260	7.1140	7.1020	7.0920
December 15, 2023	7.8940	7.7800	7.6800	7.5920	7.5140	7.4020	7.3440	7.2960	7.2360	7.2080	7.1860	7.1660	7.1480	7.1340	7.1200
December 15, 2024	8.1960	8.0780	7.9560	7.8380	7.7260	7.5540	7.4620	7.3840	7.2920	7.2500	7.2160	7.1880	7.1640	7.1440	7.1260
December 15, 2025	8.4620	8.4620	8.4620	8.4620	8.4620	8.4620	7.6920	7.0520	7.0520	7.0520	7.0520	7.0520	7.0520	7.0520	7.0520

11

The exact stock price and effective date may not be set forth in the table, in which case:

- if the stock price is between two stock prices on the table or the effective date is between two effective dates on the table, the fundamental change conversion rate will be determined by straight-line interpolation between the fundamental change conversion rates set forth for the higher and lower stock prices and the earlier and later effective dates, as applicable, based on a 365-day or 366-day year, as applicable;
- if the stock price is in excess of \$220.00 per share (subject to adjustment in the same manner as the column headings of the table above), then the fundamental change conversion rate will be the minimum conversion rate; and
- if the stock price is less than \$60.00 per share (subject to adjustment in the same manner as the column headings of the table above), then the fundamental change conversion rate will be the maximum conversion rate.

Make-whole dividend amount

For any shares of Mandatory Convertible Preferred Stock that are converted during the fundamental change conversion period, subject to the limitations described below, the Company may pay the make-whole dividend amount, determined in the Company's sole discretion:

- by paying cash;
- by delivering shares of Common Stock; or
- through any combination of paying cash and delivering shares of Common Stock.

The Company will pay the make-whole dividend amount in cash, except to the extent the Company elects on or prior to the second business day following the effective date of a fundamental change to make all or any portion of such payments by delivering shares of Common Stock. If the Company elects to make any payment of the make-whole dividend amount, or any portion thereof, in shares of Common Stock, such shares shall be valued for such purpose at 97% of the stock price.

No fractional shares of Common Stock will be delivered to the holders of the Mandatory Convertible Preferred Stock in respect of the make-whole dividend amount. The Company will instead pay a cash adjustment to each converting holder that would otherwise be entitled to a fraction of a share of Common Stock based on the average VWAP per share of Common Stock over the five consecutive trading day period ending on, and including, the second trading day immediately preceding the conversion date.

Notwithstanding the foregoing, with respect to any conversion of Mandatory Convertible Preferred Stock during the fundamental change conversion period, in no event will the number of shares of Common Stock that the Company delivers in lieu of paying all or any portion of the make-whole dividend amount in cash exceed a number equal to the portion of the make-whole dividend amount to be paid by the delivery of Common Stock, divided by the greater of (i) the floor price and (ii) 97% of the stock price. To the extent that the portion of the make-whole dividend amount as to which the Company has elected to deliver shares of Common Stock in lieu of paying cash exceeds the product of the number of shares of Common Stock delivered in respect of such portion of the make-whole dividend amount and 97% of the stock price, the Company will, if the Company is legally able to do so, notwithstanding any notice by the Company to the contrary, pay such excess amount in cash.

In addition, if the Company is prohibited from paying or delivering, as the case may be, the make-whole dividend amount (whether in cash or in shares of Common Stock), in whole or in part, due to limitations of applicable Delaware law, the conversion rate will instead be increased by a number of shares of Common Stock equal to the cash amount of the aggregate unpaid and undelivered make-whole dividend amount, divided by the greater of (i) the floor price and (ii) 97% of the stock price. To the extent that the cash amount of the aggregate

12

unpaid and undelivered make-whole dividend amount exceeds the product of such number of additional shares and 97% of the stock price, the Company will not have any obligation to pay the shortfall in cash.

Not later than the second business day following the effective date of a fundamental change, the Company will notify holders of:

- the fundamental change conversion rate;
- the fundamental change dividend make-whole amount and whether the Company will pay such amount, or any portion thereof, in shares of Common Stock and, if applicable, the portion of such amount that will be paid in Common Stock; and
- the accumulated dividend amount and whether the Company will pay such amount, or any portion thereof, in shares of Common Stock and, if applicable, the portion of such amount that will be paid in Common Stock.

The Company's obligation to deliver shares at the fundamental change conversion rate and pay the fundamental change dividend make-whole amount could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness of economic remedies.

Conversion Procedures

Upon mandatory conversion

Any outstanding shares of Mandatory Convertible Preferred Stock will automatically convert into shares of Common Stock on the mandatory conversion date. The person or persons entitled to receive the shares of Common Stock issuable upon mandatory conversion of the Mandatory Convertible Preferred Stock will be treated as the record holder(s) of such shares as of 5:00 p.m., New York City time, on the mandatory conversion date. Except as provided under "—Anti-dilution Adjustments," prior to 5:00 p.m., New York City time, on the mandatory conversion date, the shares of Common Stock issuable upon conversion of the Mandatory Convertible Preferred Stock will not be deemed to be outstanding for any purpose and holders of the Mandatory Convertible Preferred Stock will have no rights with respect to such shares of Common Stock, including voting rights, rights to respond to tender offers and rights to receive any dividends or other distributions on the Common Stock, by virtue of holding the Mandatory Convertible Preferred Stock.

Upon early conversion

If a holder elects to convert its shares of Mandatory Convertible Preferred Stock prior to December 15, 2025, in the manner described under "—Conversion at the Option of the Holder" or "—Conversion at the Option of the Holder upon Fundamental Change; Fundamental Change Dividend Make-whole Amount," such holder must observe the conversion procedures set forth below.

If such holder holds a beneficial interest in a global share of Mandatory Convertible Preferred Stock, to convert its shares of Mandatory Convertible Preferred Stock early, such holder must deliver to The Depository Trust Company ("DTC") the appropriate instruction form for conversion pursuant to DTC's conversion program and, if such holder's shares of Mandatory Convertible Preferred Stock are held in certificated form, such holder must comply with certain procedures set forth in the certificate of designations.

The conversion date will be the date on which the converting holder has satisfied the foregoing requirements; *provided* that, for the avoidance of doubt, in no event may such conversion date occur after December 15, 2025. A holder that early converts its shares of Mandatory Convertible Preferred Stock will not be required to pay any taxes or duties relating to the issuance or delivery of Common Stock if such holder exercises its early conversion rights, except that such holder will be required to pay any tax or duty that may be payable relating to any transfer involved in the issuance or delivery of the Common Stock in a name other than the name of such holder. Shares of Common Stock will be issued and delivered only after all applicable taxes and duties, if any, payable by the converting holder have been paid in full and will be issued on the later of the second business day immediately succeeding the conversion date and the business day after such holder has paid in full all applicable taxes and duties, if any.

The person or persons entitled to receive the shares of Common Stock issuable upon early conversion of the Mandatory Convertible Preferred Stock will be treated as the record holder(s) of such shares as of 5:00 p.m., New York City time, on the applicable conversion date. Prior to 5:00 p.m., New York City time, on the applicable conversion date, the shares of Common Stock issuable upon early conversion of the Mandatory Convertible Preferred Stock will not be deemed to be outstanding for any purpose and a holder of shares of the Mandatory Convertible Preferred Stock will have no rights with respect to such shares of Common Stock, including voting rights, rights to respond to tender offers and rights to receive any dividends or other distributions on the Common Stock, by virtue of holding the Mandatory Convertible Preferred Stock.

Fractional shares

No fractional shares of Common Stock will be issued to holders of Mandatory Convertible Preferred Stock upon conversion. In lieu of any fractional shares of Common Stock otherwise issuable in respect of the aggregate number of shares of Mandatory Convertible Preferred Stock of any holder that are converted, that holder will be entitled to receive an amount in cash (computed to the nearest cent) equal to the product of: (i) that same fraction; and (ii) the average VWAP per share of Common Stock over the five consecutive trading day period ending on, and including, the second trading day immediately preceding the relevant conversion date.

If more than one share of Mandatory Convertible Preferred Stock is surrendered for conversion at one time by or for the same holder, the number of shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Mandatory Convertible Preferred Stock so surrendered.

Anti-dilution Adjustments

Each fixed conversion rate will be adjusted if:

- (1) The Company issues Common Stock to all or substantially all holders of Common Stock as a dividend or other distribution, in which event, each fixed conversion rate in effect immediately prior to 5:00 p.m., New York City time, on the date fixed for determination of the holders of Common Stock entitled to receive such dividend or other distribution will be *multiplied by a fraction*:
 - the numerator of which is the sum of (x) the number of shares of Common Stock outstanding immediately prior to 5:00 p.m., New York City time, on the date fixed for such determination and (y) the total number of shares of Common Stock constituting such dividend or other distribution, and
 - the denominator of which is the number of shares of Common Stock outstanding immediately prior to 5:00 p.m., New York City time, on the date fixed for such determination.

Any increase made pursuant to this clause (1) will become effective immediately after 5:00 p.m., New York City time, on the date fixed for such determination. If any dividend or distribution described in this clause (1) is declared but not so paid or made, each fixed conversion rate shall be decreased, effective as of the date the Board, or an authorized committee thereof, publicly announces its decision not to make such dividend or distribution, to such fixed conversion rate that would be in effect if such dividend or distribution had not been declared. For the purposes of this clause (1), the number of shares of Common Stock outstanding immediately prior to 5:00 p.m., New York City time, on the date fixed for such determination shall not include shares held in treasury but shall include any shares issuable in respect of any scrip certificates issued in lieu of fractions of shares of Common Stock. The Company will not pay any dividend or make any distribution on shares of Common Stock held in treasury.

- (2) The Company issues to all or substantially all holders of Common Stock rights or warrants (other than rights or warrants issued pursuant to a stockholder rights plan, customary dividend reinvestment plan or customary share purchase plan or other similar plans) entitling them, for a period of up to 45 calendar days after the announcement date of such issuance, to subscribe for or purchase Common Stock at less than the "current market price" (as defined below) of the Common Stock, in which case each fixed conversion rate in effect immediately prior to 5:00 p.m., New York City time, on the date fixed for determination of the holders of Common Stock entitled to receive such rights or warrants will be increased by multiplying such fixed conversion rate by a fraction:

-
- the numerator of which is the sum of (x) the number of shares of Common Stock outstanding immediately prior to 5:00 p.m., New York City time, on the date fixed for such determination and (y) the number of shares of Common Stock issuable pursuant to such rights or warrants, and
 - the denominator of which shall be the sum of (i) the number of shares of Common Stock outstanding immediately prior to 5:00 p.m., New York City time, on the date fixed for such determination and (ii) the number of shares of Common Stock equal to the quotient of the aggregate offering price payable to exercise such rights or warrants, *divided by the current market price of the Common Stock*.

Any increase made pursuant to this clause (2) will become effective immediately after 5:00 p.m., New York City time, on the date fixed for such determination. In the event that such rights or warrants described in this clause (2) are not so issued, each fixed conversion rate shall be decreased, effective as of the date the Board, or an authorized committee thereof, publicly announces its decision not to issue such rights or warrants, to such fixed conversion rate that would then be in effect if such issuance had not been declared. To the extent that such rights or warrants are not exercised prior to their expiration or shares of Common Stock are otherwise not delivered pursuant to such rights or warrants upon the exercise of such rights or warrants, each fixed conversion rate shall be decreased to such fixed conversion rate that would then be in effect had the increase made upon the issuance of such rights or warrants been made on the basis of the delivery of only the number of shares of Common Stock actually delivered. In determining whether any rights or warrants entitle the holders thereof to subscribe for or purchase shares of Common Stock at less than the current market price, and in determining the aggregate offering price payable for such shares of Common Stock, there shall be taken into account any consideration received for such rights or warrants and the amount payable upon exercise or conversion thereof, the value of such consideration (if other than cash) to be determined by the Board, or an authorized committee thereof. For the purposes of this clause (2), the number of shares of Common Stock at the time outstanding shall not include shares held in treasury but shall include any shares issuable in respect of any scrip certificates issued in lieu of fractions of shares of Common Stock. The Company will not issue any such rights or warrants in respect of shares of Common Stock held in treasury.

- (3) The Company subdivides or combines the Common Stock, in which event each fixed conversion rate in effect immediately prior to 9:00 a.m., New York City time, on the effective date of such subdivision or combination will be *multiplied by a fraction*:

- the numerator of which is the number of shares of Common Stock that would be outstanding immediately after, and solely as a result of, such subdivision or combination, and
- the denominator of which is the number of shares of Common Stock outstanding immediately prior to such subdivision or combination.

Any adjustment made pursuant to this clause (3) shall become effective immediately after 9:00 a.m., New York City time, on the effective date of such subdivision or combination.

- (4) The Company distributes to all or substantially all holders of Common Stock evidences of the Company's indebtedness, shares of capital stock, securities, rights to acquire the Company's capital stock (other than rights issued pursuant to a stockholder rights plan so long as such rights have not separated from the Common Stock), cash or other assets, excluding:

- any dividend or distribution as to which an adjustment was effected pursuant to clause (1) above;
- any rights or warrants as to which an adjustment was effected pursuant to clause (2) above;

15

-
- any dividend or distribution as to which the provisions set forth in clause (5) below shall apply; and
 - any spin-off to which the provisions set forth below in this clause (4) shall apply,

in which event each fixed conversion rate in effect immediately prior to 5:00 p.m., New York City time, on the date fixed for the determination of holders of Common Stock entitled to receive such distribution will be *multiplied by a fraction*:

- the numerator of which is the current market price of the Common Stock, and
- the denominator of which is the current market price of the Common Stock minus the fair market value, as determined by the Board, or an authorized committee thereof, on the ex-date of such distribution, of the portion of the evidences of indebtedness, shares of capital stock, securities, rights to acquire the Company's capital stock, cash or other assets so distributed applicable to one share of Common Stock.

Any increase made pursuant to the preceding paragraph will become effective immediately after 5:00 p.m., New York City time, on the date fixed for such determination. In the event that such distribution described in the preceding paragraph is not so made, each fixed conversion rate shall be decreased, effective as of the date the Board, or an authorized committee thereof, publicly announces its decision not to make such distribution, to such fixed conversion rate that would then be in effect if such distribution had not been declared.

In the event that the Company makes a distribution to all holders of Common Stock consisting of capital stock of, or similar equity interests in, or relating to a subsidiary or other business unit of the Company's, that are, or, when issued, will be, listed or admitted for trading on a U.S. national securities exchange (herein referred to as a "spin-off"), each fixed conversion rate in effect immediately prior to 9:00 a.m., New York City time, on the ex-date of such distribution will be *multiplied by a fraction*:

- the numerator of which is the sum of the current market price of the Common Stock and the current market price of the portion of those shares of capital stock or similar equity interests so distributed applicable to one share of Common stock, and
- the denominator of which is the current market price of the Common Stock.

Any increase made pursuant to the preceding paragraph shall be made immediately following the determination of the current market price of the Common Stock, but shall become retroactively effective immediately after 9:00 a.m., New York City time, on the ex-date of such distribution. In the event that such distribution described in the preceding paragraph is not so made, each fixed conversion rate shall be decreased, effective as of the date the Board, or an authorized committee thereof, publicly announces its decision not to make such distribution, to such fixed conversion rate that would then be in effect if such distribution had not been declared. Because the Company will make any increase to each fixed conversion rate pursuant to the preceding paragraph with retroactive effect, the Company will delay the settlement of any conversion of Mandatory Convertible Preferred Stock where any date for determining the number of shares of Common Stock issuable upon such conversion occurs during the period for determining the current market price pursuant to the preceding paragraph until the second business day immediately following the last trading day of such period.

- (5) The Company makes a dividend or distribution consisting exclusively of cash to all or substantially all holders of Common Stock, excluding:

- any cash that is distributed in exchange for Common Stock in a reorganization event (as described below),

- any dividend or distribution in connection with the Company's liquidation, dissolution or winding up, and
- any consideration payable as part of a tender or exchange offer covered by clause (6),

in which event, each fixed conversion rate in effect immediately prior to 5:00 p.m., New York City time, on the date fixed for determination of the holders of Common Stock entitled to receive such dividend or distribution will be *multiplied by* a fraction:

- the numerator of which is the current market price of the Common Stock, and
- the denominator of which is the current market price of the Common Stock *minus* the amount per share of Common Stock of such dividend or distribution.

Any increase made pursuant to this clause (5) shall become effective immediately after 5:00 p.m., New York City time, on the date fixed for the determination of the holders of Common Stock entitled to receive such dividend or distribution. In the event that any dividend or distribution described in this clause (5) is not so made, each fixed conversion rate shall be decreased, effective as of the date the Board, or an authorized committee thereof, publicly announces its decision not to make such dividend or distribution, to such fixed conversion rate which would then be in effect if such dividend or distribution had not been declared.

- (6) The Company or any of its subsidiaries successfully completes a tender or exchange offer pursuant to a Schedule TO or registration statement on Form S-4 for Common Stock where the cash and the value of any other consideration included in the payment per share of Common Stock exceeds the current market price of the Common Stock, in which event each fixed conversion rate in effect immediately prior to 5:00 p.m., New York City time, on the date of expiration of the tender or exchange offer (the "expiration date") will be *multiplied by* a fraction:

- the numerator of which shall be equal to the sum of:

- (i) the aggregate cash and fair market value (as determined by the Board, or an authorized committee thereof) on the expiration date of any other consideration paid or payable for shares purchased in such tender or exchange offer; and

- (ii) the product of:

1. the current market price of the Common Stock; and

2. the number of shares of Common Stock outstanding immediately after such tender or exchange offer expires (after giving effect to the purchase or exchange of shares pursuant to such tender or exchange offer), and

- the denominator of which shall be equal to the product of:

- (i) the current market price of the Common Stock; and

- (ii) the number of shares of Common Stock outstanding immediately prior to the time such tender or exchange offer expires (without giving effect to the purchase or exchange of shares pursuant to such tender or exchange offer).

Any increase made pursuant to this clause (6) shall be made immediately following the determination of the current market price of the Common Stock, but shall become retroactively effective immediately after 5:00 p.m., New York City time, on the expiration date. In the event that the Company is, or one of its subsidiaries is, obligated to purchase shares of Common stock pursuant to any such tender offer or exchange offer, but the Company is, or such subsidiary is, permanently prevented

by applicable law from effecting any such purchases, or all such purchases are rescinded, then each fixed conversion rate shall be decreased to be such fixed conversion rate that would then be in effect if such tender offer or exchange offer had not been made. Except as set forth in the preceding sentence, if the application of this clause (6) to any tender offer or exchange offer would result in a decrease in each fixed conversion rate, no adjustment shall be made for such tender offer or exchange offer under this clause (6). Because the Company will make any increase to each fixed conversion rate pursuant to this clause (6) with retroactive effect, the Company will delay the settlement of any conversion of Mandatory Convertible Preferred Stock where any date for determining the number of shares of Common Stock issuable upon such conversion occurs during the period for determining the current market price pursuant to this clause (6) until the second business day immediately following the last trading day of such period.

In cases where (i) the fair market value of the evidences of the Company's indebtedness, shares of capital stock, securities, rights to acquire the Company's capital stock, cash or other assets distributed per share of Common Stock as to which clause (4) above applies (except with respect to a spin-off), or (ii) the amount of cash distributed per share of Common Stock as to which clause (5) above applies, in each case, equals or exceeds the average VWAP per share of Common Stock over the ten consecutive trading day period ending on, and including, the trading day immediately preceding the ex-date of such distribution, rather than being entitled to an adjustment in each fixed conversion rate, holders of the Mandatory Convertible Preferred Stock will be entitled to receive, at the same time and upon the same terms as holders of Common Stock, the kind and amount of the evidences of the Company's indebtedness, shares of capital stock, securities, rights to acquire the Company's capital stock, cash or other assets, as the case may be, comprising the distribution that such holder would have received if such holder had owned, immediately prior to the record date for determining the holders of Common Stock entitled to receive the distribution, for each share of Mandatory Convertible Preferred Stock, a number of shares of Common Stock equal to the maximum conversion rate in effect on the date of such distribution.

To the extent that the Company has a rights plan in effect with respect to the Common Stock on any conversion date, upon conversion of any shares of the Mandatory Convertible Preferred Stock, a converting holder will receive, in addition to Common Stock, the rights under the rights plan, unless, prior to such conversion date, the rights have separated from the Common Stock, in which case each fixed conversion rate will be adjusted at the time of separation as if the Company made a distribution to all holders of Common Stock as described in the portion of clause (4) above not relating to a spin-off, subject to readjustment in the event of the expiration, termination or redemption of such rights. Any distribution of rights or warrants pursuant to a rights plan that would allow a holder to receive upon conversion, in addition to any shares of Common Stock, the rights described therein (unless such rights or warrants have separated from the Common Stock (in which case each fixed conversion rate will be adjusted at the time of separation as if the Company made a distribution to all holders of Common Stock as described in the portion of clause (4) above not relating to a spin-off, subject to readjustment in the event of the expiration, termination or redemption of such rights)) shall not constitute a distribution of rights or warrants that would entitle such holder to an adjustment to the fixed conversion rates.

For the purposes of determining the adjustment to the fixed conversion rate for the purposes of:

- clause (2), clause (4) in the event of an adjustment not relating to a spin-off and clause (5) above, the "current market price" of the Common Stock is the average VWAP per share of Common Stock over the ten consecutive trading day period ending on, and including, (x) for purposes of clause (2) above, the trading day immediately preceding the announcement date of the relevant issuance and (y) for purposes of clause (4) in the event of an adjustment not relating to a spin-off and clause (5) above, the trading day immediately preceding the ex-date of the relevant distribution;

18

-
- clause (4) above in the event of an adjustment relating to a spin-off, the "current market price" of the Common Stock, capital stock or similar equity interest, as applicable (in the case of any capital stock or similar equity interest, determined by reference to the definition of "VWAP" as if references therein to the Common Stock were to such capital stock or similar equity interest), is the average VWAP per share over the first ten consecutive trading days commencing on, and including, the ex-date of such distribution; and
 - clause (6) above, the "current market price" of the Common Stock is the average VWAP per share of Common Stock over the ten consecutive trading day period commencing on, and including, the trading day immediately following the expiration date of the relevant tender or exchange offer.

The term "ex-date," when used with respect to any issuance, dividend or distribution, means the first date on which the shares of Common Stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from the Company or, if applicable, from the seller of Common Stock on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market.

In addition, the Company may make such increases in each fixed conversion rate as the Company deems advisable if the Board, or an authorized committee thereof, determines that such increase would be in the Company's best interest or in order to avoid or diminish any income tax to holders of Common Stock resulting from any dividend or distribution of shares of Common Stock (or issuance of rights or warrants to acquire shares of Common Stock) or from any event treated as such for income tax purposes or for any other reason. The Company may only make such a discretionary adjustment if the Company makes the same proportionate adjustment to each fixed conversion rate.

In the event of a taxable distribution to holders of Common Stock that results in an adjustment of each fixed conversion rate or an increase in each fixed conversion rate in the Company's discretion, beneficial owners of the Depositary Shares may, in certain circumstances, be deemed to have received a distribution subject to U.S. federal income tax as a dividend. In addition, Non-U.S. Holders of the Depositary Shares may, in certain circumstances, be deemed to have received a distribution subject to U.S. federal withholding tax requirements.

If the Company (or an applicable withholding agent) is required to withhold on constructive distributions to a holder and pay the applicable withholding taxes, the Company may, at its option, or an applicable withholding agent may, withhold such taxes from payments of cash or shares of Common Stock payable to such holder.

Adjustments to the fixed conversion rates will be calculated to the nearest 1/10,000th of a share. Prior to the first trading day of the final averaging period, no adjustment to a fixed conversion rate will be required unless the adjustment would require an increase or decrease of at least one percent in such fixed conversion rate. If any adjustment is not required to be made because it would not change the fixed conversion rates by at least one percent, then the adjustment will be carried forward and taken into account in any subsequent adjustment; *provided, however*, that the Company will make such adjustments, regardless of whether such aggregate adjustments amount to one percent or more of the fixed conversion rates (x) on any early conversion date (including in connection with a fundamental change); (y) on the effective date of any fundamental change; and (z) on each trading day of the final averaging period.

No adjustments to the fixed conversion rates will be made if holders may participate (other than in the case of (x) a share subdivision or share combination or (y) a tender or exchange offer), at the same time, upon the same terms and otherwise on the same basis as holders of Common Stock and solely as a result of holding Mandatory Convertible Preferred Stock, in the transaction that would otherwise give rise to such adjustment as if they held, for each share of Mandatory Convertible Preferred Stock, a number of shares of Common Stock equal to the maximum conversion rate then in effect.

The fixed conversion rates will not be adjusted except as provided above. Without limiting the foregoing, the fixed conversion rates will not be adjusted:

- (a) upon the issuance of any Common Stock (or rights with respect thereto) pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on the Company's securities and the investment of additional optional amounts in Common Stock under any plan;
- (b) upon the issuance of any Common Stock or rights or warrants to purchase those shares pursuant to any present or future employee, director or consultant benefit or other incentive plan or program of or assumed by the Company or any of its subsidiaries;
- (c) upon the issuance of any Common Stock pursuant to (i) any option, warrant, right or exercisable, exchangeable or convertible security outstanding as of the date the Mandatory Convertible Preferred Stock were first issued or (ii) the Series A Preferred Stock, if issued;
- (d) for a change solely in the par value of the Common Stock;
- (e) for sales of Common Stock for cash, including the sale of shares of Common Stock for a purchase price that is less than the market price per share of Common Stock or less than the maximum conversion price or the minimum conversion price, other than in a transaction described in clause (2) or clause (4) above;
- (f) for stock repurchases that are not tender or exchange offers, including pursuant to structured or derivative transactions;
- (g) as a result of a tender offer solely to holders of fewer than 100 shares of Common Stock;
- (h) as a result of a third-party tender or exchange offer, other than a tender or exchange offer by one of the Company's subsidiaries as described in clause (6) above; or
- (i) for accumulated and unpaid dividends on the Mandatory Convertible Preferred Stock, except as described above under "—Mandatory Conversion," "—Conversion at the Option of the Holder" and "—Conversion at the Option of the Holder upon Fundamental Change; Fundamental Change Dividend Make-whole Amount."

The Company will, as soon as practicable after the fixed conversion rates are adjusted, provide or cause to be provided written notice of the adjustment to the holders of shares of Mandatory Convertible Preferred Stock. The Company will also upon written request by a beneficial owner of the Depositary Shares deliver a statement setting forth in reasonable detail the method by which the adjustment to each fixed conversion rate was determined and setting forth each revised fixed conversion rate.

If an adjustment is made to the fixed conversion rates, an inversely proportional adjustment also will be made to the floor price. For the avoidance of doubt, if an adjustment is made to the fixed conversion rates, no separate inversely proportionate adjustment will be made to the initial price or the threshold appreciation price because the initial price is equal to \$1,000 *divided by* the maximum conversion rate (as adjusted in the manner described herein) and the threshold appreciation price is equal to \$1,000 *divided by* the minimum conversion rate (as adjusted in the manner described herein).

Whenever any provision of the certificate of designations establishing the terms of the Mandatory Convertible Preferred Stock requires the Company to calculate the VWAP per share of Common Stock over a span of multiple days, the Board, or any authorized committee thereof, will make appropriate adjustments (including, without limitation, to the applicable market value, the early conversion average price, the stock price and the five-day average price, as the case may be) to account for any adjustments to the fixed

conversion rates that become effective, or any event that would require such an adjustment if the record date, ex-date, effective date or expiration date, as the case may be, of such event occurs, during the relevant period used to calculate such prices or values, as the case may be.

20

If:

- the record date for a dividend or distribution on the Common Stock occurs after the end of the final averaging period and before the mandatory conversion date, and
- that dividend or distribution would have resulted in an adjustment of the number of shares of Common Stock issuable to the holders of Mandatory Convertible Preferred Stock had such record date occurred on or before the last trading day of the final averaging period,

then the Company will deem the holders of Mandatory Convertible Preferred Stock to be holders of record, for each share of Mandatory Convertible Preferred Stock that they hold, of a number of shares of Common Stock equal to the conversion rate for purposes of that dividend or distribution. In this case, the holders of the Mandatory Convertible Preferred Stock would receive the dividend or distribution on Common Stock together with the number of shares of Common Stock issuable upon mandatory conversion of the Mandatory Convertible Preferred Stock.

Recapitalizations, Reclassifications and Changes in the Common Stock

In the event of:

- any consolidation or merger of the Company with or into another person (other than a merger or consolidation in which the Company is the continuing corporation and in which the shares of Common Stock outstanding immediately prior to the merger or consolidation are not exchanged for cash, securities or other property of the Company or another person);
- any sale, transfer, lease or conveyance to another person of all or substantially all of the Company's and its subsidiaries' consolidated property and assets;
- any reclassification of the Common Stock into securities, including securities other than Common Stock; or
- any statutory exchange of the Company's securities with another person or binding share exchange (other than in connection with a merger or consolidation),

in each case, as a result of which the Common Stock would be converted into, or exchanged for, securities, cash or property (each, a "reorganization event"), each share of Mandatory Convertible Preferred Stock outstanding immediately prior to such reorganization event shall, without the consent of the holders of the Mandatory Convertible Preferred Stock, become convertible into the kind of securities, cash and other property that such holder would have been entitled to receive if such holder had converted its Mandatory Convertible Preferred Stock into Common Stock immediately prior to such reorganization event (such securities, cash and other property, the "exchange property," with each "unit of exchange property" meaning the kind and amount of exchange property that a holder of one share of Common Stock is entitled to receive). For purposes of the foregoing, the type and amount of exchange property in the case of any reorganization event that causes Common Stock to be converted into the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election) will be deemed to be the weighted average of the types and amounts of consideration actually received by the holders of Common Stock in such reorganization event. The Company will notify holders of the Mandatory Convertible Preferred Stock of such weighted average as soon as practicable after such determination is made. The number of units of exchange property the Company will deliver upon conversion of each share of Mandatory Convertible Preferred Stock or as a payment of dividends on the Mandatory Convertible Preferred Stock, as applicable, following the effective date of such reorganization event will be determined as if references to the Common Stock in the description of the conversion rate applicable upon mandatory conversion, conversion at the option of the holder or conversion at the option of the holder upon a fundamental change and/or the description of the relevant dividend payment provisions, as applicable, were to units of exchange property (without interest thereon and without any right to dividends or distributions thereon which have a record date prior to the date on which holders of the Mandatory Convertible Preferred Stock become holders of record of the underlying exchange property). For the purpose of determining which bullet of the definition of conversion rate will apply upon mandatory conversion, and for the purpose of calculating the conversion rate if the second bullet of such definition

21

is applicable, the value of a unit of exchange property will be determined in good faith by the Board, or an authorized committee thereof, except that if a unit of exchange property includes common stock or ADRs that are traded on a U.S. national securities exchange, the value of such common stock or ADRs will be the average over the final averaging period

of the volume-weighted average prices for such common stock or ADRs, as displayed on the applicable Bloomberg screen (as determined in good faith by the Board, or an authorized committee thereof), or, if such price is not available, the average market value per share of such common stock or ADRs over such period as determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained by the Company for this purpose. The Company (or any successor to the Company) will, as soon as reasonably practicable (but in any event within 20 calendar days) after the occurrence of any reorganization event, provide written notice to the holders of Mandatory Convertible Preferred Stock of such occurrence and of the kind and amount of cash, securities or other property that constitute the exchange property. Failure to deliver such notice will not affect the operation of the provisions described in this section.

Reservation of Shares

The Company will at all times reserve and keep available out of the authorized and unissued Common Stock or shares of Common Stock held in treasury by the Company, solely for issuance upon conversion of the Mandatory Convertible Preferred Stock, the maximum number of shares of Common Stock as shall be issuable from time to time upon the conversion of all the shares of Mandatory Convertible Preferred Stock then outstanding (including, for the avoidance of doubt, the maximum additional conversion amount).

Depository Shares

Each Depository Share represents a 1/20th interest in a share of the Mandatory Convertible Preferred Stock and is initially evidenced by a global security, as defined in and described under “—Book-entry, Settlement and Clearance” in this section. Subject to the terms of the deposit agreement, the Depository Shares are entitled to all rights, preferences, privileges and voting powers of the Mandatory Convertible Preferred Stock, as applicable, in proportion to the fraction of a share of Mandatory Convertible Preferred Stock those Depository Shares represent.

In this section, references to “holders” of Depository Shares mean those who have Depository Shares registered in their own names on the books maintained by the bank depository and not indirect holders who will own beneficial interests in Depository Shares registered in the street name of, or issued in book-entry form through, DTC prior to the mandatory conversion of the Mandatory Convertible Preferred Stock.

Conversion

Because each Depository Share represents a 1/20th interest in a share of Mandatory Convertible Preferred Stock, a holder of Depository Shares may elect to convert Depository Shares only in lots of 20 Depository Shares, either on an early conversion date at the minimum conversion rate of 0.3526 shares of Common Stock per Depository Share, subject to adjustment, or during a fundamental change conversion period at the fundamental change conversion rate, as described below. For a description of the terms and conditions on which the Mandatory Convertible Preferred Stock is convertible at the option of holders of Mandatory Convertible Preferred Stock, see the sections entitled “Description of Mandatory Convertible Preferred Stock—Conversion at the Option of the Holder” and “Description of Mandatory Convertible Preferred Stock—Conversion at the Option of the Holder upon Fundamental Change; Fundamental Change Dividend Make-whole Amount” herein.

The following table sets forth the fundamental change conversion rate per Depository Share, subject to adjustment as described under “Description of Mandatory Convertible Preferred Stock—Conversion at the Option of the Holder upon Fundamental Change; Fundamental Change Dividend Make-whole Amount,” based on the effective date of the fundamental change and the stock price in the fundamental change:

Effective Date	Stock Price														
	\$60.00	\$70.00	\$80.00	\$90.00	\$100.00	\$118.18	\$130.00	\$141.80	\$160.00	\$170.00	\$180.00	\$190.00	\$200.00	\$210.00	\$220.00
December 13, 2022	0.3841	0.3793	0.3753	0.3719	0.3690	0.3649	0.3628	0.3611	0.3589	0.3579	0.3571	0.3563	0.3557	0.3551	0.3546
December 15, 2023	0.3947	0.3890	0.3840	0.3796	0.3757	0.3701	0.3672	0.3648	0.3618	0.3604	0.3593	0.3583	0.3574	0.3567	0.3560
December 15, 2024	0.4098	0.4039	0.3978	0.3919	0.3863	0.3777	0.3731	0.3692	0.3646	0.3625	0.3608	0.3594	0.3582	0.3572	0.3563
December 15, 2025	0.4231	0.4231	0.4231	0.4231	0.4231	0.4231	0.3846	0.3526	0.3526	0.3526	0.3526	0.3526	0.3526	0.3526	0.3526

- The exact stock price and effective date may not be set forth in the table, in which case:
- if the stock price is between two stock prices on the table or the effective date is between two effective dates on the table, the fundamental change conversion rate per Depository Share will be determined by straight-line interpolation between the fundamental change conversion rates per Depository Share set forth for the higher and lower stock prices and the earlier and later effective dates, as applicable, based on a 365-day or 366-day year, as applicable;
 - if the stock price is in excess of \$220.00 per share (subject to adjustment in the same manner as the column headings of the table above), then the fundamental change conversion rate per Depository Share will be the minimum conversion rate, divided by 20; and

- if the stock price is less than \$60.00 per share (subject to adjustment in the same manner as the column headings of the table above), then the fundamental change conversion rate per Depositary Share will be the maximum conversion rate, *divided by 20*.

On any conversion date for the Mandatory Convertible Preferred Stock, each Depositary Share corresponding to the shares of the Mandatory Convertible Preferred Stock so converted will be entitled to receive 1/20th of the number of shares of Common Stock and the amount of any cash received by the depositary upon conversion of each share of Mandatory Convertible Preferred Stock.

The following table illustrates the conversion rate per Depositary Share, subject to adjustment as described under “Description of Mandatory Convertible Preferred Stock—Anti-dilution Adjustments” herein, based on the applicable market value of the Common Stock:

Applicable market value of Common Stock	Conversion rate per Depositary Share
Greater than the threshold appreciation price	0.3526 shares of Common Stock
Equal to or less than the threshold appreciation price but greater than or equal to the initial price	Between 0.3526 and 0.4231 shares of Common Stock, determined by dividing \$50 by the applicable market value
Less than the initial price	0.4231 shares of Common Stock

After delivery of Common Stock by the transfer agent to the bank depositary following conversion of the Mandatory Convertible Preferred Stock, the bank depositary will transfer the proportional number of shares of Common Stock to the holders of Depositary Shares by book-entry transfer through DTC or, if the holders’ interests are in certificated depositary receipts, by delivery of Common Stock certificates for such number of shares of Common Stock.

If the Company (or an applicable withholding agent) is required to withhold on distributions of Common Stock in respect of dividends in arrears or in respect of the net present value of future dividends to a holder and pay the applicable withholding taxes, the Company may, at its option, or an applicable withholding agent may, withhold such taxes from payments of cash or shares of Common Stock payable to such holder.

Fractional Shares

No fractional shares of Common Stock will be issued to holders of Depositary Shares upon conversion. In lieu of any fractional shares of Common Stock otherwise issuable in respect of the aggregate number of Depositary Shares of any holder that are converted, that holder will be entitled to receive an amount in cash (computed to the nearest cent) equal to the product of: (i) that same fraction; and (ii) the average VWAP per share of Common Stock over the five consecutive trading day period ending on, and including, the second trading day immediately preceding the conversion date.

If more than one Depositary Share is surrendered for, or subject to, conversion at one time by or for the same holder, the number of shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of Depositary Shares so surrendered for, or subject to, conversion.

Dividends and Other Distributions

Each dividend paid on a Depositary Share will be in an amount equal to 1/20th of the dividend paid on the related share of Mandatory Convertible Preferred Stock. So long as Depositary Shares are held of record by the nominee of DTC, declared cash dividends in respect of Depositary Shares will be paid to DTC in same-day funds on each dividend payment date. DTC will credit accounts of its participants in accordance with DTC’s normal procedures. The participants will be responsible for holding or disbursing such payments to beneficial owners of Depositary Shares in accordance with the instructions of such beneficial owners.

The bank depositary will deliver any cash or shares of Common Stock it receives in respect of dividends on Mandatory Convertible Preferred Stock to the holders of the Depositary Shares in such amounts as are, as nearly as practicable, in proportion to the number of outstanding Depositary Shares held by such holders, on the date of receipt or as soon as practicable thereafter.

The dividend payable on the first dividend payment date, if declared, is expected to be \$0.8625 per Depositary Share, and the dividend payable on each subsequent dividend payment date, if declared, is expected to be \$0.84375 per Depositary Share.

Record dates for the payment of dividends and other matters relating to the Depositary Shares will be the same as the corresponding record dates for Mandatory Convertible Preferred Stock.

No fractional shares of Common Stock will be delivered to the holders of Depositary Shares in respect of dividends. Each holder that would otherwise be entitled to a fraction of a share of Common Stock will instead be

entitled to receive a cash adjustment (computed to the nearest cent) based on the average VWAP per share of Common Stock over the five consecutive trading day period ending on, and including, the second trading day immediately preceding the applicable dividend payment date.

The amount paid as dividends or otherwise distributable by the bank depositary with respect to the Depositary Shares or the underlying Mandatory Convertible Preferred Stock will be reduced by any amounts required to be withheld by the Company or the bank depositary on account of taxes or other governmental charges. The bank depositary may refuse to make any payment or distribution, or any transfer, exchange, or withdrawal of any Depositary Shares or the shares of Mandatory Convertible Preferred Stock until such taxes or other governmental charges are paid.

No Redemption

The Company may not redeem Depositary Shares. However, at the Company's option, the Company may purchase Depositary Shares from time to time in the open market, by tender offer, exchange offer or otherwise.

Voting the Mandatory Convertible Preferred Stock

Because each Depositary Share represents a 1/20th interest in a share of the Mandatory Convertible Preferred Stock, holders of depositary receipts will be entitled to 1/20th of a vote per share of Mandatory Convertible Preferred Stock under those circumstances in which holders of the Mandatory Convertible Preferred Stock are entitled to a vote, as described under "Description of Mandatory Convertible Preferred Stock—Voting Rights" herein.

When the bank depositary receives notice of any meeting at which the holders of Mandatory Convertible Preferred Stock are entitled to vote, the bank depositary will mail the notice to the record holders of the Depositary Shares relating to the Mandatory Convertible Preferred Stock. Each record holder of Depositary Shares on the record date (which will be the same date as the record date for Mandatory Convertible Preferred Stock) may instruct the bank depositary as to how to vote the amount of Mandatory Convertible Preferred Stock represented by such holder's Depositary Shares in accordance with these instructions. The bank depositary will endeavor, insofar as practicable, to vote the amount of the preferred stock represented by such Depositary Shares in accordance with these instructions, and the Company will take all actions the bank depositary deems necessary in order to enable the bank depositary to do so. The bank depositary will abstain from voting shares of the Mandatory Convertible Preferred Stock to the extent it does not receive specific instructions from the holders of Depositary Shares representing Mandatory Convertible Preferred Stock.

Modification, Amendment and Termination

Without the consent of the holders of the Depositary Shares, the Company may amend, alter or supplement the depositary agreement or any certificate representing the Depositary Shares for the following purposes:

- to cure any ambiguity, omission, inconsistency or mistake in any such agreement or instrument;
- to make any provision with respect to matters or questions relating to the Depositary Shares that is not inconsistent with the provisions of the depositary agreement and that does not materially and adversely affect the rights, preferences, privileges or voting powers of any holder of the Depositary Shares;
- to make any change reasonably necessary, in the Company's reasonable determination, to reflect each Depositary Share's representation of 1/20th of a share of Mandatory Convertible Preferred Stock;
- to make any change reasonably necessary, in the Company's reasonable determination, to comply with the procedures of the bank depositary and that does not materially and adversely affect the rights, preferences, privileges or voting powers of any holder of the Depositary Shares; or
- to make any other change that does not materially and adversely affect the rights, preferences, privileges or voting powers of any holder of the Depositary Shares (other than any holder that consents to such change).

With the consent of the record holders of at least a majority of the aggregate number of Depositary Shares then outstanding, the Depositary Shares and any provisions of the deposit agreement may at any time and from time to time be amended, altered or supplemented by agreement between the Company and the depositary; *provided that*, without the consent of each record holder of an outstanding Depositary Share affected, no such amendment, alteration or supplement will:

- reduce the number of Depositary Shares the record holders of which must consent to an amendment, alteration or supplement of the Depositary Shares or the deposit agreement;

- reduce the amount payable or deliverable in respect of the Depositary Shares or extend the stated time for such payment or delivery;
- impair the right, subject to certain requirements set forth in the deposit agreement, of any owner of Depositary Shares to surrender any receipt evidencing such Depositary Shares to the depositary with instructions to deliver to it the Mandatory Convertible Preferred Stock and all money and/or other property represented thereby;
- change the currency in which payments in respect of the Depositary Shares or any receipt evidencing such Depositary Shares is made;
- impair the right of any record holder of Depositary Shares to receive payments or deliveries on its Depositary Shares on or after the due dates therefor or to institute suit for the enforcement of any such payment or delivery;
- make any change that materially and adversely affects the conversion rights of any record holder of Depositary Shares; or
- make any change that materially and adversely affects the voting rights of any record holder of Depositary Shares.

The deposit agreement may be terminated by the Company or the depositary only if (a) all outstanding Depositary Shares have been cancelled, upon conversion of the Mandatory Convertible Preferred Stock or otherwise, or (b) there has been made a final distribution in respect of the Mandatory Convertible Preferred Stock in connection with any liquidation, dissolution or winding up of the Company and such distribution shall have been distributed to the record holders of the depositary receipts pursuant to the deposit agreement.

Charges of Bank Depositary

The Company will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. The Company will pay charges of the bank depositary in connection with the initial deposit of the Mandatory Convertible Preferred Stock. Except as otherwise set forth herein, holders of depositary receipts will pay other transfer and other taxes and governmental charges and any other charges, including a fee for the withdrawal of shares of Mandatory Convertible Preferred Stock upon surrender of depositary receipts, as are expressly provided in the deposit agreement to be for their accounts.

Withdrawal Rights

A holder of 20 Depositary Shares may withdraw the share of Mandatory Convertible Preferred Stock corresponding to such Depositary Shares, and any cash or other property represented by such Depositary Shares. A holder who withdraws shares of Mandatory Convertible Preferred Stock (and any such cash or other property) will not be required to pay any taxes or duties relating to the issuance or delivery of such shares of Mandatory Convertible Preferred Stock (and any such cash or other property), except that such holder will be required to pay any tax or duty that may be payable relating to any transfer involved in the issuance or delivery of such shares of Mandatory Convertible Preferred Stock (and any such cash or other property) in a name other than the name of such

holder. Holders of shares of Mandatory Convertible Preferred Stock will not have the right under the deposit agreement to deposit such shares with the depositary in exchange for Depositary Shares.

Listing

The Depositary Shares are listed on the New York Stock Exchange under the symbol "GTLS.PR.B". The Company has agreed to use its reasonable best efforts to keep the Depositary Shares representing fractional interests in the Mandatory Convertible Preferred Stock listed on the New York Stock Exchange. Listing the Depositary Shares on the New York Stock Exchange does not guarantee that a trading market will develop or, if a trading market does develop, the depth of that market or the ability of holders to sell their Depositary Shares easily. The Company does not expect there will be any separate public trading market for the shares of the Mandatory Convertible Preferred Stock except as represented by the Depositary Shares.

Form and Notices

The Mandatory Convertible Preferred Stock will be issued in registered form to the bank depositary, and the Depositary Shares will be issued in book-entry only form through DTC prior to the conversion of the Mandatory Convertible Preferred Stock, as described under "—Book-entry, Settlement and Clearance" in this section. The bank depositary will forward to the holders of Depositary Shares all reports, notices and communications from the Company that are delivered to the bank depositary and that the Company is required to furnish to the holders of Mandatory Convertible Preferred Stock.

Book-entry, Settlement and Clearance

The global security

The Depositary Shares have been initially issued in the form of a single registered security in global form (the "global security"). The global security has been deposited with the bank depositary as custodian for DTC and registered in the name of Cede & Co., as nominee of DTC.

Ownership of beneficial interests in the global security is limited to persons who have accounts with DTC ("DTC participants") or persons who hold interests through DTC participants. Under procedures established by DTC, ownership of beneficial interests in the global security will be shown on, and transfer of ownership of those interests will be effected only through, records maintained by DTC (with respect to interests of DTC participants) and the records of DTC participants (with respect to other owners of beneficial interests in the global security).

Beneficial interests in the global security may not be exchanged for securities in physical, certificated form except in the limited circumstances described below.

Book-entry procedures for the global security

All interests in the global security are subject to the operations and procedures of DTC. So long as DTC's nominee is the registered owner of the global security, that nominee will be considered the sole owner or holder of the Depositary Shares represented by the global security for all purposes under the deposit agreement. Except as provided below, owners of beneficial interests in the global security:

- will not be entitled to have securities represented by the global security registered in their names;
- will not receive or be entitled to receive physical, certificated securities; and
- will not be considered the owners or holders of the securities under the deposit agreement for any purpose, including with respect to the giving of any direction, instruction or approval to the bank depositary under the deposit agreement.

As a result, each investor who owns a beneficial interest in the global security must rely on the procedures of DTC to exercise any rights of a holder of securities under the deposit agreement (and, if the investor is not a participant or an indirect participant in DTC, on the procedures of the DTC participant through which the investor owns its interest).

27

Payments of dividends with respect to the Depositary Shares represented by the global security will be made by the bank depositary to DTC's nominee as the registered holder of the global security. Neither the Company nor the bank depositary will have any responsibility or liability for the payment of amounts to owners of beneficial interests in the global security, for any aspect of the records relating to or payments made on account of those interests by DTC, or for maintaining, supervising or reviewing any records of DTC relating to those beneficial interests.

Payments by participants and indirect participants in DTC to the owners of beneficial interests in the global security will be governed by standing instructions and customary industry practice and will be the responsibility of those participants or indirect participants and DTC.

Transfers between participants in DTC will be effected under DTC's procedures and will be settled in same-day funds.

Certificated securities

Depositary Shares in physical, certificated form will be issued and delivered to each person that DTC identifies as a beneficial owner of the Depositary Shares only if:

- DTC notifies the Company at any time that it is unwilling or unable to continue as depositary for the global security and a successor depositary is not appointed within 90 days; or
- DTC ceases to be registered as a clearing agency under the Exchange Act and a successor depositary is not appointed within 90 days.

Anti-Takeover Effects of Certain Provisions of the Certificate of Incorporation and the Bylaws

Certain provisions of the Certificate of Incorporation and the Bylaws, which are summarized in the following paragraphs, may have an anti-takeover effect and may delay, defer or prevent a tender offer or takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by stockholders.

Removal of Directors; Vacancies. The Certificate of Incorporation provides that any director may be removed with or without cause, at any time by the affirmative vote of holders of at least 75% of the voting power of all the then outstanding shares of stock entitled to vote generally in the election of directors, voting together as a single class. In addition, the Bylaws also provide that any vacancies on the Board will be filled by the affirmative vote of a majority of the remaining directors, although less than a quorum or by the sole remaining director.

No Cumulative Voting. The Delaware General Corporation Law (the "DGCL") provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless the Certificate of Incorporation provides otherwise. The Certificate of Incorporation prohibits cumulative voting.

Calling of Special Meetings of Stockholders. The Certificate of Incorporation and the Bylaws provide that special meetings of the Company's stockholders may be called at any time only by the chairman of the Board, the Board or a committee of the Board that has been designated by the Board.

Stockholder Action by Written Consent. The DGCL permits stockholder action by written consent unless otherwise provided by the Certificate of Incorporation. The Certificate of Incorporation precludes stockholder action by written consent.

Advance Notice Requirements for Stockholder Proposals and Director Nominations. The Bylaws provide that stockholders seeking to nominate candidates for election as directors or to bring business before an annual meeting of stockholders must provide timely notice of their proposal in writing to the Company's secretary.

Generally, to be timely, a stockholder's notice must be received at the Company's principal executive offices not less than 90 calendar days nor more than 120 calendar days prior to the anniversary date of the preceding year's annual meeting of stockholders or at such other time as specified in the Bylaws. The Bylaws also specify requirements as to the form and content of a stockholder's notice. These provisions may impede stockholders' ability to bring matters before an annual meeting of stockholders or make nominations for directors at an annual meeting of stockholders.

28

Supermajority Provisions. The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote is required to amend a corporation's certificate of incorporation or bylaws, unless the certificate of incorporation requires a greater percentage. The Certificate of Incorporation provides that the following provisions in the Certificate of Incorporation and the Bylaws may be amended, altered, repealed or rescinded by stockholders only if approved by a vote of at least 75% of the voting power of all of the outstanding shares of the Company's stock entitled to vote generally in the election of directors:

- the removal of directors;
- the limitation of stockholder action by written consent;
- the ability to call a special meeting of stockholders being vested solely in the chairman of the Board, the Board and any committee of the Board that has been designated by the Board;
- the advance notice requirements for stockholder proposals and director nominations; and
- the amendment provision requiring that the above provisions be amended only with a 75% supermajority vote.

In addition, the Certificate of Incorporation grants the Board the authority to amend or repeal the Bylaws without a stockholder vote in any manner not inconsistent with the laws of the State of Delaware or the Certificate of Incorporation.

29

Exhibit 10.2.21

**CHART INDUSTRIES, INC.
2017 OMNIBUS EQUITY PLAN**

NONQUALIFIED STOCK OPTION AGREEMENT

THIS NONQUALIFIED STOCK OPTION AGREEMENT (the "Agreement") is entered into as of this [[grantdatewords]] GRANT DATE] (the "Grant Date"), between Chart Industries, Inc., a Delaware corporation (the "Company"), and [[FIRSTNAME]].[[LASTNAME]] (the "Participant").

WITNESSETH:

WHEREAS, the Compensation Committee of the Board of Directors of the Company (the "Committee") administers the Chart Industries, Inc. 2017 Omnibus Equity Plan (the "Plan"); and

WHEREAS, the Committee has determined that it would be in the best interests of the Company and its stockholders to grant nonqualified stock options to the Participant upon the terms and conditions set forth in this Agreement.

NOW, THEREFORE, the Company and the Participant agree as follows:

1. Interpretation. Unless otherwise specified in this Agreement, capitalized terms shall have the meanings attributed to them under the Plan. The terms and provisions of the Plan, as it may be amended from time to time, are hereby incorporated herein by reference. In the event of a conflict between any term or provision contained herein and a term or provision of the Plan, the applicable terms and provisions of the Plan will govern, except with respect to Section 4(b) of this Agreement.

2. Grant of the Option. As of the Grant Date, the Company grants to the Participant, under the terms and conditions of this Agreement, the right to purchase all or any part of an aggregate of ([[SHARESGRANTED]]) Shares, which right will vest over a period of time in accordance with Section 4 (the "Option"), subject to adjustment as set forth in Section 3.4 of the Plan. The Option is intended to be a nonqualified stock option.

3. Option Price. The purchase price of the Shares subject to the Option shall be, and shall never be less than, the Fair Market Value of the Shares on the Grant Date. The Fair Market Value of a Share on the Grant Date is [[grantprice]] (the "Option Price"). The Option Price is subject to adjustment as described in Section 3.4 of the Plan.

4. Vesting.

a. Service-Based. Subject to the Participant's continued Employment as of such dates (except as otherwise provided herein with respect to death, Disability, Retirement or Change in Control), the Option shall vest and become exercisable with respect to twenty-five percent (25%) of the Shares initially covered by the Option on each of the first, second, third and fourth anniversaries of the Grant Date.

b. Change in Control.

i. Company Remains Surviving Entity or Awards Assumed by Successor.

A. Upon the occurrence of a Change in Control as defined in the Plan in which either (i) the Company remains the surviving entity or (ii) the Company is not the surviving entity, but this Agreement is Assumed (as defined in Section 4(b)(i)(C) below) by the entity (or any successor or parent thereof) that effects such change in control

(the (the "Post-CIC Entity")), the Option shall continue to vest and

become exercisable in accordance with the terms of this Agreement unless, during the two-year period commencing on the date of the Change in Control:

1. the Participant's employment or service is involuntarily terminated by the Company or the Post-CIC Entity, as applicable, for reasons other than for Cause (as defined in Section 4(d)(iii)); or
2. the Participant terminates the Participant's employment or service for Good Reason (as defined in Section 4(d)(iv)).

B. If a Participant's employment or service is terminated as described in Section 4(b)(i)(A)(1) or (2) above ("Protected Termination"), the Option shall become fully vested and remain exercisable until the earlier of (A) the end of the original term of the Option as provided in the Plan or (B) the second anniversary of the date the Protected Termination occurs; provided, that any Participant who is to incur a Protected Termination in connection with Participant's employment or service for Good Reason must:

1. provide the Company with a written notice of Participant's intent to incur a Protected Termination of employment or service for Good Reason within sixty (60) days after the Participant becomes aware of the circumstances giving rise to Good Reason; and

2. allow the Company thirty (30) days to remedy such circumstances to the extent curable.
- C. For purposes of this Section 4, an Award shall be considered assumed by the Post-CIC Entity ("Assumed") if all of the following conditions are met:
1. The Option is converted into a replacement award in a manner that complies with Code Section 409A;
 2. the replacement awards contain provisions for scheduled vesting and treatment on Protected Termination of employment (including the definitions of Cause and Good Reason, if applicable) that are no less favorable to the Participant than the Option, and all other terms of the replacement awards (other than the security and number of shares represented by the replacement awards) are substantially similar to, or more favorable to the Participant than, the terms of the Option; and
 3. the security represented by the Option is of a class that is publicly held and widely traded on an established stock exchange.

ii. Awards Not Assumed by Successor.

- A. Upon the occurrence of a Change in Control in which the Company is not the surviving Company, if the Option is not Assumed by the Post-CIC Entity, the Option shall become fully vested and

exercisable on the date of the Change in Control, and the following provisions of this Section 4(b)(ii) shall apply.

- B. The Participant shall receive a payment equal to the difference between the consideration (consisting of cash or other property (including securities of a successor or parent corporation)) received by holders of Shares in the Change in Control transaction and the exercise price of the applicable Stock Option or SAR, if such difference is positive. Such payment shall be made in the same form as the consideration received by holders of Shares. If the Option has an exercise price that is higher than the per share consideration received by holders of Shares in connection with the Change in Control, the Option shall be cancelled for no additional consideration.
- C. The payments contemplated by Sections 4(b)(ii)(B) shall be made at the same time as consideration is paid to the holders of Shares in connection with the Change in Control, provided such payments are made no later than the fifth anniversary of the Change in Control.

c. Termination of Employment

- i. General Rule. If the Participant's Employment is terminated for any reason other than those reasons specifically addressed in Section 4(c), and except as otherwise provided in Section 4(b), the Unvested Portion of the Option shall be canceled and the Participant shall have no further rights with respect thereto and the Vested Portion of the Option shall remain exercisable for the period set forth in Section 5(a) of this Agreement.
- ii. Death or Disability. If the Participant's Employment terminates as a result of death or Disability, the Option shall, to the extent not then vested and not previously canceled, immediately become fully vested and exercisable.

- iii. Retirement. If the Participant's Employment terminates as a result of Retirement and the Participant will have continued vesting of unvested stock options that would have otherwise vested in the year following the year in which the Participant retires. The remaining unvested options are forfeited.
- d. Special Terms.
- i. At any time, the portion of the Option which has become vested and exercisable as described above is referred to as the "Vested Portion," and the portion of the Option which is then unvested is referred to as the "Unvested Portion."
 - ii. The term "Retirement" or variations thereof means a voluntary termination of Employment with the Company, its Subsidiaries and its Affiliates after either (i) attaining age 60 and completing 10 years of service with such entities or (ii) attaining age 65 and completing 5 years of service with such entities.
 - iii. "Cause" shall mean, with respect to the Participant, the meaning ascribed to such term in any employment, severance, or change in control agreement entered into by the Participant. If the Participant has not entered into any employment, severance, or change in control agreement with a definition of Cause, then "Cause" means (i) the Participant's willful failure to perform duties which, if curable, is not cured promptly, or in any event within ten

(10) days, following the first written notice of such failure from the Company, (ii) the Participant's commission of, or plea of guilty or no

- contest to a (x) felony or (y) crime involving moral turpitude, (iii) willful malfeasance or misconduct by the Participant which is demonstrably injurious to the Company or its Subsidiaries or Affiliates, (iv) material breach by the Participant of any non-competition, non-solicitation or confidentiality covenants, (v) commission by the Participant of any act of gross negligence, corporate waste, disloyalty or unfaithfulness to the Company which adversely affects the business of the Company or its Subsidiaries or Affiliates, or (vi) any other act or course of conduct by the Participant which will demonstrably have a material adverse effect on the Company, a Subsidiary or Affiliate's business; and iv. "Good Reason" means, with respect to the Participant, the meaning ascribed to such term in any employment, severance, or change in control agreement entered into by the Participant. If the Participant has not entered into any employment, severance, or change in control agreement with a definition of Good Reason, then "Good Reason" means without the Participant's consent, (i) a material diminution in the Participant's authority, position or duties, or a material adverse change in reporting lines, (ii) Participant's principal place of employment with the Company or Post-CIC Entity is relocated a material distance (which for this purpose shall be deemed to be more than 50 miles) from such Participant's principal place of employment immediately prior to the Change in Control, (iii) any reduction in the Participant's base salary and (excluding any general salary reduction affecting similarly situated employees of the Company as a result of a material adverse change in the Company's prospects or business), or (iv) the Participant is excluded, following a Change in Control (other than through Participant's voluntary action(s)), from full participation in any benefit plan or arrangement maintained for similarly situated employees of the Company or Post-CIC Entity, and such exclusion materially reduces the benefits that otherwise would have been available to the Participant, in each case which is not cured within thirty (30) days following the Company's receipt of written notice from the Participant describing the event constituting Good Reason.
- v. "Disability" shall mean, with respect to the Participant, a medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months which: (i) renders the Participant unable to engage in substantial gainful activity or (ii) results in the Participant receiving income replacement benefits for at least three months under an accident and health plan sponsored by the Participant's employer.

5. Exercise of Option.

- a. Period of Exercise. Except as otherwise provided in Section 4(b)(i)(B) above, and subject to the provisions of the Plan and this Agreement, the Participant (or his or her successor, as appropriate) may exercise all or any part of the Vested Portion of the Option at any time prior to the earliest to occur of:
- i. the tenth anniversary of the Grant Date;
 - ii. the first anniversary of the Participant's termination of Employment due to death or Disability;
 - iii. the fifth anniversary of the Participant's termination of Employment due to Retirement;

- iv. thirty (30) days following the date of the Participant's termination of Employment by the Participant without Good Reason (other than Retirement) or by the Company or its Affiliates for Cause; and v. ninety (90) days following the date of the Participant's termination of Employment for reasons other than the reasons described in Section 5(a)(ii), 5(a)(iii) and 5(a)(iv) above.

b. Method of Exercise.

- i. Subject to Section 5(a), the Vested Portion of the Option may be exercised by delivering written notice of intent to so exercise to the Company at its principal office; provided that, the Option may be exercised with respect to whole Shares only. Such notice shall specify the number of Shares for which the Option is being exercised and shall be accompanied by full payment of the Option Price. Payment of the Option Price may be made at the election of the Participant: (w) in cash or its equivalent (e.g., by check); (x) to the extent permitted by the Committee, in Shares having a Fair Market Value as of the payment date equal to the aggregate Option Price for the Shares being purchased and satisfying such other requirements imposed by the Committee, provided that such Shares have been held by the Participant for more than six months (or such other period as established from time to time by the Committee); (y) partially in cash and, to the extent permitted by the Committee, partially in such Shares; or (z) if there is a public market for the Shares on the payment date, subject to such rules as may be established by the Committee, through the delivery of irrevocable instructions to a broker to sell Shares obtained upon the exercise of the Option and to deliver promptly to the Company an amount out of the proceeds of such sale equal to the aggregate Option Price for the Shares being purchased. No Participant shall have any rights to dividends or other rights of a stockholder with respect to Shares subject to an Option until the Participant has given written notice of exercise of the Option, paid the full Option Price for such Shares and, if applicable, satisfied any other requirements imposed by the Committee.
- ii. Notwithstanding any other provision of the Plan or this Agreement to the contrary, the Option may not be exercised prior to the completion of any registration or qualification of the Option or the Shares under applicable state and federal securities or other laws, or under any ruling or regulation of any governmental body or national securities exchange that the Committee determines, in its sole discretion, to be necessary or advisable.
- iii. Upon the Committee's determination that the Option has been validly exercised as to any of the Shares, the Company shall issue certificates in the Participant's name for such Shares. However, the Company shall not be liable to any person or entity for damages relating to any delays in issuing the certificates, any loss of the certificates or any mistakes or errors in the issuance of the certificates or in the certificates themselves.
- iv. In the event of the Participant's death, the Vested Portion of the Option shall remain exercisable by the Participant's successor to the extent set forth in Section 5(a). No beneficiary, executor, administrator, heir or legatee of the Participant shall have greater rights than the Participant under this Agreement or otherwise.

6. Designation of Beneficiary. By properly executing and delivering a Designation of Beneficiary Form to the Company, the Participant may designate an individual or individuals as his or her beneficiary or beneficiaries with respect to his or her interest under the Plan. If the Participant fails to

properly designate a beneficiary, his or her interests under this Agreement will pass to the person or persons in the first of the following classes (who shall be deemed a beneficiary or beneficiaries) in which there are any survivors: (i) spouse at the time of death; (ii) issue, per stirpes; (iii) parents; and (iv) the estate. Except as the Company may determine in its sole and exclusive discretion, a properly completed Designation of Beneficiary Form shall be deemed to revoke all prior designations upon its receipt and approval by the designated representative.

7. Non-Transferability of Option. The Option (and any portion thereof) may not be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by the Participant other than by beneficiary designation pursuant to this Agreement or the laws of descent and distribution, and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable. No permitted transfer of the Option shall be effective to bind the Company unless the Committee is furnished with written notice thereof and a copy of such evidence as the Committee may deem necessary or appropriate to establish the validity of the transfer and the acceptance by the transferee or transferees of the terms and conditions of the Plan and this Agreement. During the Participant's lifetime, the Option is exercisable only by the Participant.

8. Non-Transferability of Shares; Legends. Upon the acquisition of any Shares pursuant to the exercise of the Option, if the Shares have not been registered under the Securities Act of 1933, as amended (the "Act"), they may not be sold, transferred or otherwise disposed of unless a registration statement under the Act with respect to the Shares has become effective or unless the Participant establishes to the satisfaction of the Company that an exemption from such registration is available. The Shares will bear a legend stating the substance of such restrictions, as well as any other restrictions the Committee deems necessary or appropriate. In addition, the Participant will make or enter into such written representations, warranties and agreements as the Committee may reasonably request in order to comply with applicable securities laws or this Agreement.

9. Plan Administration. The Plan is administered by the Committee, which has sole and exclusive power and discretion to interpret, administer, implement and construe the Plan and this Agreement. All elections, notices and correspondence relating to the Plan should be directed to the Secretary at:

Chart Industries, Inc.
2200 Airport Industrial Drive
Suite 100
Ball Ground, GA 30107
Attn.: Secretary

10. Notices. Any notice relating to this Agreement intended for the Participant will be sent to the address appearing in the personnel records of the Company, its Affiliate or its Subsidiary. Either party may designate a different address in writing to the other. Any notice shall be deemed effective upon receipt by the addressee.

11. Successors and Legal Representatives. This Agreement will bind and inure to the benefit of the Company and the Participant and their respective heirs, beneficiaries, executors, administrators, estates, successors, assigns and legal representatives.

12. Withholding. The Participant may be required to pay to the Company or any Affiliate and the Company or any Affiliate shall have the right and is hereby authorized to withhold, any applicable withholding taxes in respect of the Option, its exercise or any payment or transfer under or with respect to the Option and to take such other action as may be necessary in the opinion of the Committee to satisfy all obligations for the payment of such withholding taxes.

13. Integration. This Agreement, together with the Plan, constitutes the entire agreement between the Participant and the Company with respect to the subject matter hereof. No terms of this Agreement shall be construed as amending the Plan in any respect. In the event of any conflict between the provisions of the Plan as in effect on the date hereof and the provisions of this Agreement, the provisions of the Plan shall govern, except with respect to Section 4(b) of this Agreement. This

Agreement and the Plan may not be modified, amended, renewed or terminated, nor may any term, condition or breach of any term or condition be waived, except pursuant to the terms of the Plan or Section 21 below or by a writing signed by the person or persons sought to be bound by such modification, amendment, renewal, termination or waiver. Any waiver of any term, condition or breach thereof will not be a waiver of any other term or condition or of the same term or condition for the future, or of any subsequent breach.

14. Separability. In the event of the invalidity of any part or provision of this Agreement, such invalidity will not affect the enforceability of any other part or provision of this Agreement.

15. Incapacity. If the Committee determines that the Participant is incompetent by reason of physical or mental disability or a person incapable of handling his or her property, the Committee may deal directly with, or direct any issuance of Shares to, the guardian, legal representative or person having the care and custody of the incompetent or incapable person. The Committee may require proof of incompetence, incapacity or guardianship, as it may deem appropriate before making any issuance. In the event of an issuance of Shares, the Committee will have no obligation thereafter to monitor or follow the application of the Shares issued. Issuances made pursuant to this paragraph shall completely discharge the Company's obligations under this Agreement.

16. No Further Liability. The liability of the Company, its Affiliates, and its Subsidiaries under this Agreement is limited to the obligations set forth herein and no terms or provisions of this Agreement shall be construed to impose any liability on the Company, its Affiliates, its Subsidiaries or the Committee in favor of any person or entity with respect to any loss, cost, tax or expense which the person or entity may incur in connection with or arising from any transaction related to this Agreement.

17. Section Headings. The section headings of this Agreement are for convenience and reference only and are not intended to define, extend or limit the contents of the sections.

18. No Right to Continued Employment. Nothing in this Agreement will be construed to confer upon the Participant the right to continue in the Employment of the Company, its Subsidiaries or its Affiliates, or to be employed or serve in any particular position therewith, or affect any right the Company, its Subsidiaries or its Affiliates may have to terminate the Participant's Employment or service with or without cause.

19. Governing Law. This Agreement will be governed by, construed and enforced in accordance with the internal laws of the State of Delaware, without giving effect to its principles of conflict of laws.

20. Signature in Counterparts. This Agreement may be signed in counterparts, each of which shall be an original, with the same effect as if the signatures were upon the same instrument.

21. Amendment. The Committee may waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate this Agreement, but no such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination shall materially adversely affect the rights of the Participant hereunder without the consent of the Participant; provided, however, that the Participant's consent shall not be required to an amendment that is deemed necessary or appropriate by the Company to ensure (a) compliance with (or exemption from) Section 409A of the Code; (b) compliance with the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 or any regulations promulgated thereunder (the "Dodd-Frank Act"); or (c) compliance with the terms of any recoupment or "clawback" policy the Company adopts to comply with the requirements of the Dodd-Frank Act or any regulations promulgated thereunder (even if the terms of that policy are broader than the requirements of the Dodd-Frank Act).

22. Section 409A of the Code. It is intended that this Agreement and the compensation and benefits hereunder meet the requirements for exemption from Code Section 409A set forth in Treas. Reg. Section 1.409A-1(b)(5), as well as any other such applicable exemption, and this Agreement shall be so interpreted and administered. In addition to the general amendment rights of the Company with respect to the Plan, the Company specifically retains the unilateral right (but not the obligation) to make,

prospectively or retroactively, any amendment to this Agreement or any related document as it deems necessary or desirable to more fully address issues in connection with exemption from (or compliance with) Section 409A of the Code and other laws. In no event, however, shall this section or any other provisions of this Agreement be construed to require the Company to provide any gross-up for the tax consequences of any provisions of, or payments under, this Agreement. Except as may be provided in another agreement to which the Company is bound, the Company and its Affiliates

shall have no responsibility for tax or legal consequences to the Participant (or the Participant's beneficiaries) resulting from the terms or operation of this Agreement or the Plan.

23. Adjustment of Number of Shares, Etc. Subject to Section 3.4 of the Plan, if, after the Grant Date, the Committee determines that any dividend or other distribution (whether in the form of cash, Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, redesignation, reclassification, merger, consolidation, liquidation, split-up, reverse split, spin-off, combination, repurchase or exchange of Shares or other securities of the Company, issuance of warrants or other rights to purchase Shares or other securities of the Company or other similar corporate transaction or event affects the Shares such that an adjustment is determined by the Committee to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under this Agreement, then the Committee may, in such manner as it deems equitable, adjust any or all of (i) the number and type of Shares (or other securities or other property) subject to the Option and (ii) the Option Price. Any such adjustment shall be final, binding and conclusive as to the Participant. Any such adjustment may provide for the elimination of fractional shares if the Committee shall so direct.

By Participant's signature and the signature of the Company's representative below, or by Participant's acceptance of this Award through the Company's online acceptance procedure, this Agreement shall be deemed to have been executed and delivered by the parties hereto as of the Grant Date. Participant hereby acknowledges that the treatment of the Option upon a Change in Control, as set forth in Section 4(b) hereof, differs from and supersedes the treatment set forth in Section 12.2 of the Plan.

Participant Chart Industries, Inc.

[[SIGNATURE]] By: [[SIGNATURE]]

Print Name: [[FIRSTNAME]].[[LASTNAME]] Its: [[TITLE]]

Date: [[SIGNATURE_DATE]] Date: [[SIGNATURE_DATE]]

Exhibit **10.2.19**
10.2.22

**CHART INDUSTRIES, INC.
2017 OMNIBUS EQUITY PLAN**

PERFORMANCE UNIT AGREEMENT

THIS PERFORMANCE UNIT AGREEMENT (the "Agreement"), is entered into as of this [[grantdatewords] **GRANT DATE**] (the "Grant Date"), by and between Chart Industries, Inc., a Delaware corporation (the "Company"), and [[FIRSTNAME]].[[LASTNAME]] (the "Grantee").

WITNESSETH:

WHEREAS, the Compensation Committee of the Board of Directors of the Company (the "Committee") administers the Chart Industries, Inc. 2017 Omnibus Equity Plan (the "Plan"); and

WHEREAS, the Committee desires to provide the Grantee with Performance Units under the Plan upon the terms and conditions set forth in this Agreement.

NOW, THEREFORE, the Company and the Grantee agree as follows:

1. Definitions. Unless the context otherwise indicates, the following words used herein shall have the following meanings wherever used in this Agreement:

- a. "Cause" means, with respect to the Grantee, the meaning ascribed to such term in any employment, severance, or change in control agreement entered into by the Grantee. If the Grantee has not entered into any employment, severance, or change in control agreement with a definition of Cause, then "Cause" means (i) the Grantee's willful failure to perform duties which, if curable, is not

cured promptly, or in any event within ten (10) days, following the first written notice of such failure from the Company, (ii) the Grantee's commission of, or plea of guilty or no contest to a (x) felony or (y) crime involving moral turpitude, (iii) willful malfeasance or misconduct by the Grantee which is demonstrably injurious to the Company or its Subsidiaries or Affiliates, (iv) material breach by the Grantee of any non-competition, non-solicitation or confidentiality covenants, (v) commission by the Grantee of any act of gross negligence, corporate waste, disloyalty or unfaithfulness to the Company which adversely affects the business of the Company or its Subsidiaries or Affiliates, or (vi) any other act or course of conduct by the Grantee which will demonstrably have a material adverse effect on the Company, a Subsidiary or Affiliate's business.

- b. "Disability" means, with respect to the Grantee, a medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months which: (i) renders the Grantee unable to engage in substantial gainful activity or (ii) results in the Grantee receiving income replacement benefits for at least three months under an accident and health plan sponsored by the Grantee's employer.

-
- c. "Good Reason" means, with respect to the Grantee, the meaning ascribed to such term in any employment, severance, or change in control

agreement entered into by the Grantee. If the Grantee has not entered into any employment, severance, or change in control agreement with a definition of Good Reason, then "Good Reason" means without the Grantee's consent, (i) a material diminution in the Grantee's authority, position or duties, or a material adverse change in reporting lines, (ii) Grantee's principal place of employment with the Company or Post-CIC Entity is relocated a material distance (which for this purpose shall be deemed to be more than 50 miles) from such Grantee's principal place of employment immediately prior to the Change in Control, (iii) any reduction in the Grantee's base salary and (excluding any general salary reduction affecting similarly situated employees of the Company as a result of a material adverse change in the Company's prospects or business), or (iv) the Grantee is excluded, following a Change in Control (other than through Grantee's voluntary action(s)), from full participation in any benefit plan or arrangement maintained for similarly situated employees of the Company or Post-CIC Entity, and such exclusion materially reduces the benefits that otherwise would have been available to the Grantee, in each case which is not cured within thirty (30) days following the Company's receipt of written notice from the Grantee describing the event constituting Good Reason.

- d. "Performance Period" means the period set forth in Exhibit A.
- e. "Performance Requirements" means the performance measure(s) set forth in Exhibit A.
- f. "Performance Unit" means a Restricted Share Unit representing the right to receive a Share after completion of the Performance Period provided that the Performance Requirements have been satisfied.
- g. "Retirement" (or variations thereof) means a voluntary termination of Employment with the Company, its Subsidiaries and its Affiliates after either (i) attaining age 60 and completing 10 years of service with such entities or (ii) attaining age 65 and completing 5 years of service with such entities.

Notwithstanding this Section, and unless otherwise specified in the Agreement, capitalized terms shall have the meanings attributed to them under the Plan.

2. Grant of Performance Units. As of the Grant Date, the Company grants to the Grantee, upon the terms and conditions set forth in this Agreement, ([[SHARESGRANTED]]) Performance Units. If the Grantee is a Section 162(m) Person, the Performance Units are intended to be Section 162(m) of the Code "performance-based compensation." The Performance Units are granted in accordance with, and subject to, all the terms, conditions and restrictions of the Plan, which is hereby incorporated by reference in its entirety. In the event of a conflict between any term or provision contained herein and a term or provision of the Plan, the applicable terms and provisions of the Plan will govern, except with respect to Section 5 of this Agreement. The Grantee irrevocably agrees to, and accepts, the terms, conditions and restrictions of the Plan and this Agreement on his own behalf and on behalf of any beneficiaries, heirs, legatees, successors and assigns.

3. Restrictions on Transfer of Performance Units. The Grantee and his or her beneficiaries, heirs, legatees, successors and assigns cannot sell, transfer, assign, pledge, hypothecate or otherwise directly or indirectly dispose of the Performance Units (whether with or

without consideration and whether voluntarily or involuntarily or by operation of law) or any interest therein.

4. Termination of Employment.

- a. Retirement, Death or Disability. If the Grantee terminates Employment as a result of Retirement, death or Disability prior to the last day of the Performance Period, the Grantee (or his or her beneficiary or beneficiaries) shall be entitled to a pro-rated number of Shares, calculated by multiplying (x) by (y) where:

(x) is the number of Shares, if any, that would have been earned by the Grantee as the result of the satisfaction of the Performance Requirements; and

(y) is the number of months that the Grantee was employed (rounded up to the nearest whole number) during the Performance Period divided by the number of months in the Performance Period.

The distribution or payment of the pro-rated award shall occur (if at all) at the same time as the distribution or payment specified in Section 6.

- b. Reasons Other Than Retirement, Death or Disability. Except as otherwise provided in Section 5, if the Committee determines in its sole and exclusive discretion that the Grantee's Employment has terminated prior to the end of the Performance Period for reasons other than those described in Section 4(a) above, the Grantee will forfeit his or her Performance Units. If the Performance Units are forfeited, the Grantee and all persons who might claim through him or her will have no further interests under this Agreement.

5. Change in Control.

- a. Company Remains Surviving Entity or Awards Assumed by Successor.

- i. Upon the occurrence of a Change in Control as defined in the Plan in which either (i) the Company remains the surviving entity or (ii) the Company is not the surviving entity, but the Performance Units granted pursuant to this Agreement are Assumed (as defined in Section 5(a)(iii) below) by the entity (or any successor or parent thereof) that effects such change in control (the "Post-CIC Entity"), any Performance Units granted pursuant to this Agreement prior to the Change in Control shall continue to vest in accordance with the terms of this Agreement unless, during the two-year period commencing on the date of the Change in Control:

- A. the Grantee's employment or service is involuntarily Terminated by the Company or the Post-CIC Entity, as applicable, for reasons other than for Cause; or

-
- B. the Grantee Terminates Grantee's employment or service for Good Reason.
-

- ii. If a Grantee's employment or service is terminated as described in Section 5(a)(i)(A) or (B) above (a "Protected Termination"), the Performance Units granted to Grantee pursuant to this Agreement shall immediately be earned or vest in a prorated amount (as described below) and such prorated portion shall, to the extent permitted under Code Section 409A without resulting in adverse tax effects to the Grantee, become immediately payable in accordance with the Award's terms; provided, that if the Grantee intends to incur a Protected Termination of Grantee's employment or service for Good Reason, Grantee must:

- A. provide the Company with a written notice of Grantee's intent to incur a Protected Termination of employment or service for Good Reason within sixty (60) days after the Grantee becomes aware of the circumstances giving rise to Good Reason; and

- B. allow the Company thirty (30) days to remedy such circumstances to the extent curable.

For purposes of this Section 5(a)(ii), the "prorated amount" will be based on the actual level of achievement against the Performance Requirements during the Performance Period up to the date of the Change in Control and the number of full months that elapsed during the Performance Period up to, and as of, the date of the Change in Control. The Committee may, in good faith, adjust performance goals to account for the shortened Performance Period.

- iii. For purposes of this Section 5, the Performance Units granted pursuant to this Agreement shall be considered assumed by the Post-CIC Entity ("Assumed") if all of the following conditions are met:
 - A. Such Performance Units are converted into replacement awards that preserve the value of such Performance Units at the time of the Change in Control;
 - B. the replacement awards contain provisions for scheduled vesting and treatment on a Protected Termination of employment (including the definitions of Cause and Good Reason, if applicable) that are no less favorable to the

Grantee than the underlying Performance Units, and all other terms of the replacement awards (other than the security and number of shares represented by the replacement awards) are substantially similar to, or more favorable to the Grantee than, the terms of this Agreement; and

- C. the security represented by the replacement awards, if any, is of a class that is publicly held and widely traded on an established stock exchange.

b. Awards Not Assumed by Successor.

- i. Upon the occurrence of a Change in Control in which the Company is not the surviving Company, a prorated amount (as

described below) of any Performance Units granted pursuant to this Agreement that are subject to Performance Requirements and that are not Assumed by the Post-CIC Entity shall immediately vest and become immediately payable in accordance with its terms (subject to Section 5(c)), and this Section 5(b) shall apply.

For purposes of this Section 5(b), the "prorated amount" will be based on the actual level of achievement against the Performance Requirements during the Performance Period up to, and as of, the date of the Change in Control and the number of full months that elapsed during the Performance Period up to the date of the Change in Control. The Committee may, in good faith, adjust performance goals to account for the shortened Performance Period.

- ii. The payments contemplated by this Section 5(b) shall be made at the same time as consideration is paid to the holders of Shares in connection with the Change in Control, provided such payments are made no later than the fifth anniversary of the Change in Control.

6. Distributions. Within 60 days after satisfaction or deemed satisfaction of the Performance Requirements:

- a. with respect to Shares earned under Sections 4 or 5, the Company will deliver to Grantee (or his or her beneficiary or beneficiaries) certificates for the Shares to which Grantee is entitled, subject to any applicable securities law restrictions; and b. with respect to Shares otherwise earned under this Agreement, the Company will issue to the Grantee the Shares to which Grantee is entitled, subject to any applicable securities law restrictions, and provided that the Grantee is in active Employment on the last day of the Performance Period.

For purposes of this Section 6, "earned" Shares are those Shares to which the Grantee is entitled based upon the Earned Performance Units (as described in Exhibit A) and the terms of Section 4 or 5, if applicable. Upon distribution of Shares, the recipient and all persons who might claim through him or her shall have no remaining interest under this Agreement.

7. Dividend and Voting Rights. The Grantee will not have any voting rights or be entitled to any dividends with respect to Performance Units unless and until the Performance Requirements are timely satisfied and Shares have actually been issued to the Grantee. No dividends or dividend equivalents will be paid to the Grantee based upon interests in the Performance Units during the Performance Period.

8. Designation of Beneficiary. By properly executing and delivering a Designation of Beneficiary Form to the Company, the Grantee may designate an individual or individuals as his or her beneficiary or beneficiaries with respect to his or her interest under this Agreement. If the Grantee fails to properly designate a beneficiary, his or her interests under this Agreement

will pass to the person or persons in the first of the following classes (who shall be deemed a beneficiary or beneficiaries) in which there are any survivors: (i) spouse at the time of death; (ii) issue, *per stirpes*; (iii) parents; and (iv) the estate. Except as the Company may determine in its sole and exclusive discretion, a properly completed Designation of Beneficiary Form shall be

deemed to revoke all prior designations with respect to this Agreement (or, if the form so provides, the Plan) upon its receipt and approval by the designated representative of the Company.

9. Non-Transferability of Shares; Legends. Upon the acquisition of any Shares pursuant to this Agreement, if the Shares have not been registered under the Securities Act of 1933, as amended (the "Act"), they may not be sold, transferred or otherwise disposed of unless a registration statement under the Act with respect to the Shares has become effective or unless the Grantee establishes to the satisfaction of the Company that an exemption from such registration is available. The Shares will bear a legend stating the substance of such restrictions, as well as any other restrictions the Committee deems necessary or appropriate. In addition, the Grantee will make or enter into such written representations, warranties and agreements as the Committee may reasonably request in order to comply with applicable securities laws or this Agreement.

10. Effect of Corporate Reorganization or Other Changes Affecting Number or Kind of Shares. The provisions of this Agreement will be applicable to the performance units, Shares or other securities, if any, which may be acquired by the Grantee related to the Performance Units as a result of any dividend or other distribution (whether in the form of cash, Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, redesignation, reclassification, merger, consolidation, liquidation, split-up, reverse split, spin-off, combination, repurchase or exchange of Shares or other securities of the Company, issuance of warrants or other rights to purchase Shares or other securities of the Company or other similar corporate transaction or event. Subject to Section 3.4 of the Plan, the Committee may appropriately adjust the number and kind of performance units or Shares described in this Agreement to reflect such a change.

11. Plan Administration. The Plan is administered by the Committee, which has sole and exclusive power and discretion to interpret, administer, implement and construe the Plan and this Agreement. All elections, notices and correspondence relating to the Plan should be directed to the Secretary at:

Chart Industries, Inc.
2200 Airport Industrial Drive
Suite 100
Ball Ground, GA 30107
Attn.: Secretary

12. Notices. Any notice relating to this Agreement intended for the Grantee will be sent to the address appearing in the personnel records of the Company, its Affiliate or its Subsidiary. Either party may designate a different address in writing to the other. Any notice shall be deemed effective upon receipt by the addressee.

13. Termination of Agreement. This Agreement will terminate on the earliest of: (a) the last day of the Performance Period if the Performance Requirements are not satisfied; (b) the date of termination of the Grantee's Employment for reasons referenced in Section 4(b) prior to the last day of the Performance Period; or (c) the date that Shares are delivered to the Grantee (or his or her beneficiary or beneficiaries). Any terms or conditions of this Agreement that the Company determines are reasonably necessary to effectuate its purposes will survive the termination of this Agreement. Without limiting the generality of the foregoing, the termination

of this Agreement will not affect any obligation the Grantee may have, as determined by the Committee in its sole discretion, under any recoupment or "clawback" policy adopted by the Company.

14. Successors and Legal Representatives. This Agreement will bind and inure to the benefit of the Company and the Grantee and their respective heirs, beneficiaries, executors, administrators, estates, successors, assigns and legal representatives.

15. Integration. This Agreement, together with the Plan, constitutes the entire agreement between the Grantee and the Company with respect to the subject matter hereof. No terms of this Agreement shall be construed as amending the Plan in any respect. In the event of any conflict between the provisions of the Plan as in effect on the date hereof and the provisions of this Agreement, the provisions of the Plan shall govern, except with respect to Section 5 of this Agreement. This Agreement and the Plan may not be modified, amended, renewed or terminated, nor may any term, condition or breach of any term or condition be waived, except pursuant to the terms of the Plan or Section 23 below or by a writing signed by the person or persons sought to be bound by such modification, amendment, renewal, termination or waiver. Any waiver of any term, condition or breach thereof will not be a waiver of any other term or condition or of the same term or condition for the future, or of any subsequent breach.

16. Separability. In the event of the invalidity of any part or provision of this Agreement, such invalidity will not affect the enforceability of any other part or provision of this Agreement.

17. Incapacity. If the Committee determines that the Grantee is incompetent by reason of physical or mental disability or a person incapable of handling his or her property, the Committee may deal directly with or direct any payment to the guardian, legal representative or person having the care and custody of the incompetent or incapable person. The Committee may require proof of incompetence, incapacity or guardianship, as it may deem appropriate before making any payment. In the event of a payment, the Committee will have no obligation thereafter to monitor or follow the application of the amounts so paid. Payments pursuant to this paragraph shall completely discharge the Company with respect to such payments.

18. No Further Liability. The liability of the Company, its Affiliates and its Subsidiaries under this Agreement is limited to the obligations set forth herein and no terms or provisions of this Agreement shall be construed to impose any liability on the Company, its Affiliates, its Subsidiaries or the Committee in favor of any person or entity with respect to any loss, cost, tax or expense which the person or entity may incur in connection with or arising from any transaction related to this Agreement.

19. Section Headings. The section headings of this Agreement are for convenience and reference only and are not intended to define, extend or limit the contents of the sections.

20. No Right to Continued Employment. Nothing in this Agreement will be construed to confer upon the Grantee the right to continue in the employment or service of the Company, its Subsidiaries or Affiliates, or to be employed or serve in any particular position therewith, or affect any right

which the Company, its Subsidiaries or an Affiliate may have to terminate the Grantee's employment or service with or without cause.

21. Governing Law. Except as may otherwise be provided in the Plan, this Agreement will be governed by, construed and enforced in accordance with the internal laws of the State of Delaware, without giving effect to its principles of conflict of laws.

22. Signature in Counterparts. This Agreement may be signed in counterparts, each of which shall be an original, with the same effect as if the signatures were upon the same instrument.

23. Amendment. The Committee may waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate this Agreement, but no such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination shall materially adversely affect the rights of the Grantee hereunder without the consent of the Grantee; *provided, however*, that the Grantee's consent shall not be required to an amendment that is deemed necessary or appropriate by the Company to ensure (a) compliance with (or exemption from) Section 409A of the Code; (b) compliance with the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 or any regulations promulgated thereunder (the "Dodd-Frank Act"); or (c) compliance with the terms of any recoupment or "clawback" policy the Company adopts to comply with the requirements of the Dodd-Frank Act or any regulations promulgated thereunder (even if the terms of that policy are broader than the requirements of the Dodd-Frank Act).

24. Withholding. The Grantee shall be required to pay to the Company or any Affiliate and the Company or any Affiliate shall have the right and is hereby authorized to withhold, any applicable withholding taxes in respect of the Award or payment of Shares thereunder, or any payment or transfer under or with respect to the Award or Shares and to take such other action as may be necessary in the opinion of the Committee to satisfy all obligations for the payment of such withholding taxes. Unless the Grantee makes other arrangements that are satisfactory to the Committee to cover the Company's or its Affiliate's withholding obligations, at any time that taxes are required to be withheld in connection with this Award, the Company shall withhold Shares from this Award with a Fair Market Value equal to the amount required to satisfy the minimum tax withholding obligations applicable to Grantee relating to this Award.

25. Section 409A of the Code. This Agreement, together with the Plan, constitutes the entire agreement between the parties with respect to the subject matter hereof. The parties intend that this Agreement be, at all relevant times, exempt from (or in compliance with) Section 409A of the Code and all other applicable laws, and this Agreement shall be so interpreted and administered. In addition to the general amendment rights of the Company with respect to the Plan, the Company specifically retains the unilateral right (but not the obligation) to make, prospectively or retroactively, any amendment to this Agreement or any related document as it deems necessary or desirable to more fully address issues in connection with exemption from (or in compliance with) Section 409A of the Code and other laws. In no event, however, shall this section or any other provisions of this Agreement be construed to require the Company to provide any gross-up for the tax consequences of any provisions of, or payments under, this Agreement. Except as may be provided in another agreement to which the Company is bound, the Company and its Affiliates shall have no responsibility for tax or legal consequences to the Grantee (or the Grantee's beneficiaries) resulting from the terms or operation of this Agreement or the Plan.

[Signature Page Follows]

By Grantee's signature and the signature of the Company's representative below, or by Grantee's acceptance of this Award through the Company's online acceptance procedure, this Agreement shall be deemed to have been executed and delivered by the parties hereto as of the Grant Date. Grantee hereby acknowledges that the treatment of the Performance Units upon a Change in Control, as set forth in Section 5 hereof, differs from and supersedes the treatment set forth in Section 12.2 of the Plan.

Grantee **Chart Industries, Inc.**

[[SIGNATURE]] By: [[SIGNATURE]]

Print Name: [[FIRSTNAME]].[[LASTNAME]] Its: [[TITLE]]

Date: [[SIGNATURE_DATE]] Date: [[SIGNATURE_DATE]]

EXHIBIT A

PERFORMANCE REQUIREMENTS

Performance Period

The Performance Period begins on **January 1, 2023** **January 1, 2024** and ends on **December 31, 2025** **December 31, 2026**.

Performance Measure(s)

The Performance Measure is weighted 50% based on Return on Investment, and 50% based on Operating Income:

Return on Investment - Return on Investment ("ROI") is determined by the following formula:

$$\frac{(\text{Operating Income}) \times (1 \text{ minus the Company's Effective Tax Rate})}{\text{Average Capital}^{\#} \text{ of last 2 years}}$$

[#]Capital = Total Shareholder's Equity + Noncontrolling Interest + ST Debt + LT Debt minus Cash

Where,

- "Operating Income" is the sum of the last twelve months of Total Sales less Cost of Sales and Operating Expenses (excluding nonrecurring items, such as impairment charges and unusual loss or gain on disposal of assets);
- "Noncontrolling Interest" is, with respect to subsidiaries of the Company that are not fully owned by the Company, the portion of the equity of such subsidiaries that is not owned by the Company;
- "ST Debt" is debt that is due within one year;

- “LT Debt” is debt that is due longer than one year; and
- “Cash” is cash and cash equivalents.

For avoidance of doubt, debt shall include items customarily considered to be debt on the Company's audited consolidated balance sheet. For example, the following items are considered to be debt on the Company's consolidated balance sheet: short-term debt; current convertible notes; current portion of long-term debt; long-term debt; and convertible notes conversion feature.

Operating Income – The sum of the last twelve months of Total Sales less Cost of Sales and Operating Expenses (excluding nonrecurring items, such as impairment charges and unusual loss or gain on disposal of assets).

Measurement Period will be January 1, 2023 January 1, 2024 through December 31, 2023 December 31, 2024.

The second Measurement Period will be January 1, 2024 January 1, 2025 through December 31, 2024 December 31, 2025.

The third Measurement Period will be January 1, 2025 January 1, 2026 through December 31, 2025 December 31, 2026.

At the end of each Measurement Period, the Company's ROI and Operating Income for such period will be calculated by the Committee. The calculations shall be based on the information provided in the Company's audited consolidated financial statements, subject to any adjustments as described in this Exhibit A. Then, after the end of the third Measurement Period:

- the average annual ROI will be calculated by adding the ROI for each Measurement Period and dividing the sum by three (the “Average Annual ROI”); and
- the average annual Operating Income will be calculated by adding the Operating Income for each Measurement Period and dividing the sum by three (the “Average Annual Operating Income”).

If the performance period is less than three years due to a Change in Control, the Committee shall calculate the ROI and Operating Income for the Measurement Period in which the Change in Control occurs up to the date immediately preceding the date of the Change in Control, with any adjustments necessary to account for the shorter period (including possible measurements of fractional year performance).

The Committee may, in the exercise of its discretion in good faith and in a manner consistent with the purposes of this Agreement, make such adjustments in calculating ROI and Operating Income of the Company (or any of its elements) as it deems necessary or appropriate to account for extraordinary, unusual or non-recurring events affecting the Company. Without limiting the foregoing, the Committee may make appropriate adjustments to ROI and Operating Income (or any of its elements) to reflect a merger, acquisition, disposition, spin-off, bankruptcy or liquidation, material impairment or restructuring charge, gain or loss on sale of non-operating assets, income or loss from discontinued operations, income or expenses related to the adoption or change of accounting principles, income or expenses related to material litigation and disputes, and any other extraordinary, unusual or non-recurring items affecting the Company deemed to be adjustments by the Committee.

Earned Performance Units

The Performance Units subject to the Performance Measure shall become earned performance units (the “Earned Performance Units”), as determined pursuant to the methodologies set forth below:

Earned Performance Units

ROI: The number of Earned Performance Units with respect to ROI (50% of the Performance Measure) is determined as follows:

- If the Company does not recognize any revenue for Big LNG during the Performance Period, then based on the Company's Average Annual ROI during the Performance Period, determine the percentage of Earned Performance Units (the “Non-LNG Earned Percentage”) as follows:

Non-LNG Earned Percentage Average Annual ROI

Maximum	200%	[MAXIMUM]%
Target	100%	[TARGET]%
Minimum	50%	[MINIMUM]%

“Big LNG” shall mean any liquefied natural gas (“LNG”) projects that are greater than five million tonnes per annum (“MTPA”)

If, however, the Company recognizes revenue for Big LNG during the Performance Period, then the Maximum, Target, and Minimum Average Annual ROI shall be adjusted as follows:

- Multiply the total revenue from Big LNG for each year of the Performance Period by [MARGIN FACTOR]% to determine the adjustment amount for each year of the Performance Period (the “Adjustment Amounts”),
- Add the respective Adjustment Amounts for each year of the Performance Period to the Operating Income forecasted for each year of the Performance Period (previously disclosed to the Compensation Committee as an input for the target Average Annual ROI), and adjust the target Average Annual ROI accordingly (using the other inputs for calculation of target Average Annual ROI as previously disclosed to the Compensation Committee).

Next, determine the percentage of Earned Performance Units (the “LNG Earned Percentage”) as follows:

<u>LNG Earned Percentage</u>		<u>Average Annual ROI</u>
Maximum	200%	As adjusted pursuant to steps above
Target	100%	As adjusted pursuant to steps above
Minimum	50%	As adjusted pursuant to steps above

With respect to performance levels that fall between these percentiles, the Non-LNG Earned Percentage or the LNG Earned Percentage, as the case may be, will be interpolated on a straight-line basis. In no event will the Non-LNG Earned Percentage or the LNG Earned Percentage exceed 200%.

- b. If the Non-LNG Earned Percentage applies, determine the number of Earned Performance Units under the ROI metric as follows:

Non-LNG Earned Percentage *multiplied by* [(Number of Performance Units granted in award) *multiplied by* (50%)]

If, however, the LNG Earned Percentage applies, determine the number of Earned Performance Units under the ROI metric as follows:

LNG Earned Percentage *multiplied by* [(Number of Performance Units granted in award) *multiplied by* (50%)]

Operating Income: The number of Earned Performance Units with respect to Operating Income (50% of the Performance Measure) is determined as follows:

- a. If the Company does not recognize any revenue for Big LNG during the Performance Period, based on the Company's Average Annual Operating Income during the Performance Period, determine the percentage of Earned Performance Units (the “Non-LNG Earned Percentage”) as follows:

<u>Non-LNG Earned Percentage</u>	<u>Average Annual Operating Income</u>
----------------------------------	--

Maximum	200%	[\$[MAXIMUM]
Target	100%	[\$[TARGET]
Minimum	50%	[\$[MINIMUM]

If, however, the Company recognizes revenue for Big LNG during the Performance Period, then the Maximum, Target, and Minimum Average Annual Operating Income shall be adjusted as follows:

- Multiply the total revenue from Big LNG for each year of the Performance Period by [MARGIN FACTOR]% to determine the adjustment amount for each year of the Performance Period (the “Adjustment Amounts”),
- Add the respective Adjustment Amounts for each year of the Performance Period to the Operating Income amounts noted above, under sub-part a, to determine the new Maximum, Target, and Minimum Average Annual Operating Income figures.

Next, determine the percentage of Earned Performance Units (the “LNG Earned Percentage”) as follows:

LNG Earned Percentage **Average Annual Operating Income**

Maximum	200%	As adjusted pursuant to steps above
---------	------	-------------------------------------

Target	100%	As adjusted pursuant to steps above
Minimum	50%	As adjusted pursuant to steps above

With respect to performance levels that fall between these percentiles, the Non-LNG Earned Percentage or the LNG Earned Percentage, as the case may be, will be interpolated on a straight-line basis. In no event will the Non-LNG Earned Percentage or the LNG Earned Percentage exceed 200%.

- b. If the Non-LNG Earned Percentage applies, determine the number of Earned Performance Units under the Operating Income metric as follows:

Non-LNG Earned Percentage *multiplied by* [(Number of Performance Units granted in award) *multiplied by* (50%)]

If, however, the LNG Earned Percentage Applies, determine the number of Earned Performance Units under the Operating Income metric as follows:

LNG Earned Percentage *multiplied by* [(Number of Performance Units granted in award) *multiplied by* (50%)]

Total Shareholder Return (“TSR”) Modifier

The final number of shares earned will equal the product of (1) the Earned Performance Units multiplied by (2) the “Comparative TSR Modifier”, determined in accordance with the table below.

Intermediate values between threshold and target and between target and max levels of Comparative TSR will be determined by straight-line interpolation.

Comparative TSR Modifier

	Comparative TSR Achieved	Comparative TSR Modifier*
Threshold	$x \leq 25\text{th percentile}$	0.8
Target	50th percentile	1.0
Max	$x \geq 75\text{th percentile}$	1.2

* In the event Absolute TSR for the applicable Performance Period is a negative percentage, no upward adjustment will be made on account of the Comparative TSR achieved (i.e., the Comparative TSR Modifier will be deemed to be no greater than 1.0), even if the Comparative TSR achieved over the same Performance Period would have otherwise provided for an upward adjustment.

All calculations and determinations shall be made by the Committee in its reasonable discretion. Actual percentile performance will be rounded to the nearest whole percentage point. The maximum potential number of shares earned is equal to 240% of the target number of Performance Share Units granted.

Definitions

- **“Comparative TSR”** shall mean, on a percentile basis, the Absolute TSR of the Company relative to the Absolute TSR of the component companies of the Comparator Group set forth below, in each case measured over the applicable Performance Period, as reasonably determined by the Committee.

-
- **“Absolute TSR”** shall mean, on a percentage basis, with respect to the Company or any component company of the Comparator Group set forth below, the price appreciation of such entity's common stock plus the value of reinvested dividends, calculated using the average closing price for the 20 consecutive trading days ending immediately prior to the first day of the relevant period and the 20 consecutive trading days ending and including the last day of the relevant period, as reasonably determined by the Committee.

TSR Comparator Group*

All constituent companies of the Comparator Group as of the beginning of the Performance Period:

- Air Products and Chemicals, Inc.
- Baker Hughes Company
- Barnes Group Inc.
- ChampionX
- Chenier Energy, Inc.
- CIMC Enric Holdings Limited
- CNH Industrial N.V.
- EnPro Industries, Inc.
- ESCO Technologies, Inc.
- Exterran Corporation
- Franklin Electric Co., Inc.
- Harsco Corporation
- IDEX Corporation
- ITT Inc.
- New Fortress Energy LLC
- Nikkiso
- Plug Power Inc.
- SPX Corporation
- Worthington Industries, Inc.

* Comparator Group Adjustments:

- A Comparator Group company acquired by another company or that is delisted on all major stock exchanges shall be removed from the Comparator Group for the entire Performance Period as of the closing date of the acquisition or the effective date of delisting, as applicable.
- A Comparator Group company that acquires another company shall remain in the Comparator Group for the Performance Period.
- A Comparator Group company that files for bankruptcy, liquidation or reorganization during the Performance Period shall remain in the Comparator Group positioned below the lowest performing non-bankrupt Comparator Group company in reverse chronological order by bankruptcy date. This re-ranking would occur continually through the Performance Period.
- A Comparator Group company that moves out of its applicable stock index shall remain in the Comparator Group unless one of the above occurrences applies.
- All determinations with respect to the Comparator Group shall be made by the Committee in its reasonable discretion, including any removal of a component company from the Comparator Group and the relative ranking of the component companies in the Comparator Group, whether in the case of the scenarios described in clauses (a) through (d) of these guidelines or any other corporate transaction or scenario that the Committee deems appropriate to consider.

Exhibit 10.2.20
10.2.23

**CHART INDUSTRIES, INC.
2017 OMNIBUS EQUITY PLAN
RESTRICTED SHARE UNIT AGREEMENT**

THIS RESTRICTED SHARE UNIT AGREEMENT (the "Agreement"), is entered into as of this [[grantdatewords]] GRANT DATE]] (the "Grant Date"), by and between Chart Industries, Inc., a Delaware corporation (the "Company"), and [[FIRSTNAME]].[[LASTNAME]] (the "Grantee").

WITNESSETH:

WHEREAS, the Compensation Committee of the Board of Directors of the Company (the "Committee") administers the Chart Industries, Inc. 2017 Omnibus Equity Plan (the "Plan"); and

WHEREAS, the Committee desires to provide the Grantee with Restricted Share Units under the Plan upon the terms and conditions set forth in this Agreement.

NOW, THEREFORE, the Company and the Grantee agree as follows:

1. **Definitions.** Unless the context otherwise indicates, the following words used herein shall have the following meanings wherever used in this Agreement:

- (a) **"Cause"** means, with respect to the Grantee, the meaning ascribed to such term in any employment, severance, or change in control agreement entered into by the Grantee. If the Grantee has not entered into any employment, severance, or change in control agreement with a definition of Cause, then "Cause" means (i) the Grantee's willful failure to perform duties which, if curable, is not cured promptly, or in any event within ten (10) days, following the first written notice of such failure from the Company, (ii) the Grantee's commission of, or plea of guilty or no contest to a (x) felony or (y) crime involving moral turpitude, (iii) willful malfeasance or misconduct by the Grantee which is demonstrably injurious to the Company or its Subsidiaries or Affiliates, (iv) material breach by the Grantee of any non-competition, non-solicitation or confidentiality covenants, (v) commission by the Grantee of any act of gross negligence, corporate waste, disloyalty or unfaithfulness to the Company which adversely affects the business of the Company or its Subsidiaries or Affiliates, or (vi) any other act or course of conduct by the Grantee which will demonstrably have a material adverse effect on the Company, a Subsidiary or Affiliate's business.
- (b) **"Disability"** or variations thereof means, with respect to the Grantee, a medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months which: (i) renders the Grantee unable to engage in substantial gainful activity or (ii) results in the Grantee receiving income replacement benefits for at least three months under an accident and health plan sponsored by the Grantee's employer. Notwithstanding the foregoing, a Grantee will not be considered "Disabled" with respect to this Agreement unless his or her disability satisfies the requirements set forth in Section 409A of the Code.
- (c) **"Good Reason"** means, with respect to the Grantee, the meaning ascribed to such term in any employment, severance, or change in control agreement entered into by the Grantee. If the Grantee has not entered into any employment, severance, or change in control agreement with a definition of Good Reason, then "Good Reason" means without the Grantee's consent, (i) a material diminution in the

Grantee's authority, position or duties, or a material adverse change in reporting lines, (ii) Grantee's principal place of employment with the Company or Post-CIC Entity is relocated a material distance (which for this purpose shall be deemed to be more than 50 miles) from such Grantee's principal place of employment immediately prior to the Change in Control, (iii) any reduction in the Grantee's base salary and (excluding any general salary reduction affecting similarly situated employees of the Company as a result of a material adverse change in the Company's prospects or business), or (iv) the Grantee is excluded, following a Change in Control (other than through Grantee's voluntary action(s)), from full participation in any benefit plan or arrangement maintained for similarly situated employees of the Company or Post-CIC Entity, and such exclusion materially reduces the benefits that otherwise would have been available to the Grantee, in each case which is not cured within thirty (30) days following the Company's receipt of written notice from the Grantee describing the event constituting Good Reason.

- (d) **"Retirement"** or variations thereof means, with respect to the Grantee, a voluntary termination of Employment with the Company, its Subsidiaries and its Affiliates, either (i) after attaining age 60 and completing 10 years of service with such entities or (ii) after attaining age 65 and completing 5 years of service with such entities.

Notwithstanding this Section, and unless otherwise specified in the Agreement, capitalized terms shall have the meanings attributed to them under the Plan.

2. **Grant of Restricted Share Units.** As of the Grant Date, the Company grants to the Grantee, upon the terms and conditions set forth in this Agreement, ([[SHARESGRANTED]]) Restricted Share Units (the **"RSUs"**). The Restricted Share Units are granted in accordance with, and subject to, all the terms, conditions and restrictions of the Plan, which is hereby incorporated by reference in its entirety. The RSUs give the Grantee the right to receive one (1) Share for each RSU subject to the satisfaction of the vesting requirements set forth in this Agreement. In the event of a conflict between any term or provision contained herein and a term or provision of the Plan, the applicable terms and provisions of the Plan will govern, except

with respect to Section 4(d) of this Agreement. The Grantee irrevocably agrees to, and accepts, the terms, conditions and restrictions of the Plan and this Agreement on his or her own behalf and on behalf of any beneficiaries, heirs, legatees, successors and assigns.

3. Restrictions on Transfer of Restricted Share Units. The Grantee and his or her beneficiaries, heirs, legatees, successors and assigns cannot sell, transfer, assign, pledge, hypothecate or otherwise directly or indirectly dispose of the Restricted Share Units (whether with or without consideration and whether voluntarily or involuntarily or by operation of law) or any interest therein.

4. Restriction Period.

- (a) Service-Based. Subject to the Grantee's continued Employment with the Company or its Affiliates as of such dates (except as otherwise provided herein with respect to death, Disability, Retirement or a Change in Control), the RSUs, together with any dividend equivalents credited pursuant to Section 7(b) below, shall Vest with respect to thirty-three and one-third percent (33 1/3%) of the Shares covered by the Award on each of the first (the "First Vesting Date"), second (the "Second Vesting Date"), and third (the "Third Vesting Date") anniversaries of the Grant Date (each, a "Vesting Date").
- (b) Retirement. If the Grantee's Employment terminates as a result of Retirement, the vesting provisions set forth in Sections 4(a) and 24 of this Agreement shall

2

continue to apply and the Participant will have continued vesting of unvested RSUs that would have otherwise vested in the year following the year in which the Participant retires. The remaining unvested RSUs are forfeited.

- (c) Death or Disability. If the Grantee dies or the Grantee becomes Disabled, the RSUs together with any dividend equivalents credited pursuant to Section 7(b) below, shall, to the extent not then Vested and not previously forfeited, immediately become fully Vested as of the date of the Grantee's death or Disability.

(d). Change in Control.

(i) Company Remains Surviving Entity or Awards Assumed by Successor.

(A) Upon the occurrence of a Change in Control in which either (i) the Company remains the surviving entity or (ii) the Company is not the surviving entity, but the RSUs are Assumed (as defined in Section 4(d)(i)(C) below) by the entity (or any successor or parent thereof) that effects such change in control (the "Post-CIC Entity"), any RSU granted prior to the Change in Control shall continue to vest in accordance with the terms of this Agreement unless, during the two-year period commencing on the date of the Change in Control:

(1) the Grantee's employment or service is involuntarily terminated by the Company or the Post-CIC Entity, as applicable, for reasons other than for Cause; or

(2) the Grantee Terminates Grantee's employment or service for Good Reason.

(B) If a Grantee's employment or service is terminated as described in Section 4(d)(i)(A)(1) or (2) above ("Protected Termination"), any restrictions that apply to the RSUs shall lapse; provided, that if Grantee intends to incur a Protected Termination of Grantee's employment or service for Good Reason, Grantee must:

(1) provide the Company with a written notice of his or her intent to incur a Protected Termination of employment or service for Good Reason within sixty (60) days after the Grantee becomes aware of the circumstances giving rise to Good Reason; and

(2) allow the Company thirty (30) days to remedy such circumstances to the extent curable.

(C) For purposes of this Section 4, an Award shall be considered assumed by the Post-CIC Entity ("Assumed") if all of the following conditions are met:

- (1) RSUs are converted into replacement awards covering a number of Shares of the Post-CIC Entity, as determined in a manner substantially similar to how the same number of Shares would be treated in the Change in Control transaction; provided that, to the extent that any portion of the consideration received by holders of Shares in the Change in Control transaction is not in the form of the common stock of the Post-CIC Entity, the number of shares covered

3

by the replacement awards shall be based on the average of the high and low selling prices of the common stock of such Post-CIC Entity on the established stock exchange on the trading day immediately preceding the date of the Change in Control;

- (2) the replacement awards contain provisions for scheduled vesting and treatment on Protected Termination of employment (including the definitions of Cause and Good Reason, if applicable) that are no less favorable to the Grantee than this Agreement, and all other terms of the replacement awards (other than the security and number of shares represented by the replacement awards) are substantially similar to, or more favorable to the Grantee than, the terms of this Agreement; and

- (3) the security represented by the replacement awards, if any, is of a class that is publicly held and widely traded on an established stock exchange.

- (ii) Awards Not Assumed by Successor. Upon the occurrence of a Change in Control in which the Company is not the surviving Company, if this Agreement is not Assumed by the Post-CIC Entity, Grantee shall receive the RSUs that Grantee would have received in the Change in Control transaction had Grantee been, immediately prior to such transaction, a holder of the number of Shares equal to the number of RSUs, payable at the same time as consideration is paid to the holders of Shares in connection with the Change in Control, provided such payments are made no later than the fifth anniversary of the Change in Control.

5. Forfeiture. If the Committee determines in its sole and exclusive discretion that the Grantee's Employment with the Company, its Subsidiaries and Affiliates has terminated prior to the Vesting Dates for reasons other than death, Disability or Retirement or prior to the occurrence of a Change in Control in Section 4(d) above, the Grantee will forfeit any unvested RSUs, together with any dividend equivalents credited pursuant to Section 7(b) below, and any right to receive Shares under this Agreement with respect to such unvested RSUs and the Grantee will have no further interests under this Agreement.

6. Payment and Issuance of Common Shares. The Company will deliver to the Grantee (or his or her beneficiary or beneficiaries) the Vested Shares to which the Grantee is then entitled under this Agreement (including any Shares to which the Grantee is entitled as a result of dividend equivalents credited pursuant to Section 7(b) below) free and clear of any restrictions (except any applicable securities law restrictions) in a lump sum no later than 60 days following the first to occur of (a "Payment Date"): (a) an applicable Vesting Date under Section 4(a) above (which delivery schedule shall also apply to any Grantee who has Retired), (b) the Grantee's death, (c) the Grantee's Disability or (d) a Change in Control of the Company. Any otherwise Vested fractional Shares remaining as of a Payment Date shall be eliminated and cancelled.

7. Stockholder Rights.

- (a) Voting Rights. The Grantee will not have any Stockholder rights, including voting rights, with respect to the RSUs unless and until Shares have actually been issued to the Grantee.

- (b) Dividend Equivalents. If on any date prior to a Payment Date the Company shall pay any cash dividend on the Shares (with a record date after the Grant Date), then

4

the Company shall credit on the books and records of the Company and the Grantee shall be entitled to receive, on the Payment Date, a number of Shares (rounded down to the next whole Share) equal to: (a) the aggregate number of RSUs credited to the Grantee as of the related dividend record date, multiplied by (b) the per Share amount of such cash dividend and divided by (c) the Fair Market Value of a Share on the dividend record date. In the case of any dividend declared on Shares (with a record date after the Grant Date) that is payable in the form of Shares, the Company shall credit to the Grantee's bookkeeping account and the Grantee shall be granted, as of the Payment Date, a number of additional Shares (rounded down to the next whole Share) equal to: (x) the aggregate number of RSUs credited to the Grantee as of the related dividend record date, multiplied by (y) the number of Shares (including any fraction thereof) payable as a dividend on a Share.

8. Designation of Beneficiary. By properly executing and delivering a Designation of Beneficiary Form to the Company, the Grantee may designate an individual or individuals as his or her beneficiary or beneficiaries with respect to his or her interest under this Agreement. If the Grantee fails to properly designate a beneficiary, his or her interests under this Agreement will pass to the person or persons in the first of the following classes (who shall be deemed a beneficiary or beneficiaries) in which there are any survivors: (i) spouse at the time of death; (ii) issue, *per stirpes*; (iii) parents; and (iv) the estate. Except as the Company may determine in its sole and exclusive discretion, a properly completed Designation of Beneficiary Form shall be deemed to revoke all prior designations with respect to this Agreement (or, if the form so provides, the Plan) upon its receipt and approval by the designated representative of the Company.

9. Non-Transferability of Shares; Legends. Upon the acquisition of any Shares pursuant to this Agreement, if the Shares have not been registered under the Securities Act of 1933, as amended (the "Act"), they may not be sold, transferred or otherwise disposed of unless a registration statement under the Act with respect to the Shares has become effective or unless the Grantee establishes to the satisfaction of the Company that an exemption from such registration is available. The Shares will bear a legend stating the substance of such restrictions, as well as any other restrictions the Committee deems necessary or appropriate. In addition, the Grantee will make or enter into such written representations, warranties and agreements as the Committee may reasonably request in order to comply with applicable securities laws or this Agreement.

10. Effect of Corporate Reorganization or Other Changes Affecting Number or Kind of Shares. The provisions of this Agreement will be applicable to the RSUs, Shares or other securities, if any, which may be acquired by the Grantee related to the RSUs as a result of any dividend or other distribution (whether in the form of cash, Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, redesignation, reclassification, merger, consolidation, liquidation, split-up, reverse split, spin-off, combination, repurchase or exchange of Shares or other securities of the Company, issuance of warrants or other rights to purchase Shares or other securities of the Company or other similar corporate transaction or event. Subject to Section 3.4 of the Plan, the Committee may appropriately adjust the number and kind of RSUs or Shares described in this Agreement to reflect such a change.

11. Plan Administration. The Plan is administered by the Committee, which has sole and exclusive power and discretion to interpret, administer, implement and construe the Plan and this Agreement. All elections, notices and correspondence relating to the Plan should be directed to the Secretary at:

5

Chart Industries, Inc.
2200 Airport Industrial Drive
Suite 100

5

Ball Ground, GA 30107
Attn.: Secretary

12. Notices. Any notice relating to this Agreement intended for the Grantee will be sent to the address appearing in the personnel records of the Company, its Affiliate or its Subsidiary. Either party may designate a different address in writing to the other. Any notice shall be deemed effective upon receipt by the addressee.

13. Termination of Agreement. This Agreement will terminate on the earliest of: (a) the last day of the Restriction Period under Section 4 above; (b) the date of termination of the Grantee's Employment for reasons referenced in Section 5 above; or (c) the date that Shares are delivered to the Grantee (or his or her beneficiary or beneficiaries). Any terms or conditions of this Agreement that the Company determines are reasonably necessary to effectuate its purposes will survive the termination of this Agreement. Without limiting the generality of the foregoing, the termination of this Agreement will not affect any obligation the Grantee may have, as determined by the Committee in its sole discretion, under any recoupment or "clawback" policy adopted by the Company.

14. Successors and Legal Representatives. This Agreement will bind and inure to the benefit of the Company and the Grantee and their respective heirs, beneficiaries, executors, administrators, estates, successors, assigns and legal representatives.

15. Integration. This Agreement, together with the Plan, constitutes the entire agreement between the Grantee and the Company with respect to the subject matter hereof. No terms of this Agreement shall be construed as amending the Plan in any respect. In the event of any conflict between the provisions of the Plan as in effect on the date hereof and the provisions of this Agreement, the provisions of the Plan shall govern, except with respect to Section 4(d) of this Agreement. This Agreement and the Plan may not be modified, amended, renewed or terminated, nor may any term, condition or breach of any term or condition be waived, except pursuant to the terms of the Plan or Section 23 below or by a writing signed by the person or persons sought to be bound by such modification, amendment, renewal, termination or waiver. Any waiver of any term, condition or breach thereof will not be a waiver of any other term or condition or of the same term or condition for the future, or of any subsequent breach.

16. Separability. In the event of the invalidity of any part or provision of this Agreement, such invalidity will not affect the enforceability of any other part or provision of this Agreement.

17. Incapacity. If the Committee determines that the Grantee is incompetent by reason of physical or mental disability or a person incapable of handling his or her property, the Committee may deal directly with or direct any payment to the guardian, legal representative or person having the care and custody of the incompetent or incapable person. The Committee may require proof of incompetence, incapacity or guardianship, as it may deem appropriate before making any payment. In the event of a payment, the Committee will have no obligation thereafter to monitor or follow the application of the amounts so paid. Payments pursuant to this paragraph shall completely discharge the Company with respect to such payments.

18. No Further Liability. The liability of the Company, its Affiliates and its Subsidiaries under this Agreement is limited to the obligations set forth herein and no terms or provisions of this Agreement shall be construed to impose any liability on the Company, its Affiliates, its Subsidiaries or the Committee in favor of any person or entity with respect to any loss, cost, tax or expense which the person or entity may incur in connection with or arising from any transaction related to this Agreement.

6

19. Section Headings. The section headings of this Agreement are for convenience and reference only and are not intended to define, extend or limit the contents of the sections.

6

20. No Right to Continued Employment. Nothing in this Agreement will be construed to confer upon the Grantee the right to continue in the employment or service of the Company, its Subsidiaries or Affiliates, or to be employed or serve in any particular position therewith, or affect any right which the Company, its Subsidiaries or an Affiliate may have to terminate the Grantee's employment or service with or without cause.

21. Governing Law. Except as may otherwise be provided in the Plan, this Agreement will be governed by, construed and enforced in accordance with the internal laws of the State of Delaware, without giving effect to its principles of conflict of laws.

22. Signature in Counterparts. This Agreement may be signed in counterparts, each of which shall be an original, with the same effect as if the signatures were upon the same instrument.

23. Amendment. The Committee may waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate this Agreement, but no such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination shall materially adversely affect the rights of the Grantee hereunder without the consent of the Grantee; *provided, however*, that the Grantee's consent shall not be required to an amendment that is deemed necessary or appropriate by the Company to ensure (a) compliance with (or exemption from) Section 409A of the Code; (b) compliance with the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 or any regulations promulgated thereunder (the "Dodd-Frank Act"); or (c) compliance with the terms of any recoupment or "clawback" policy the Company adopts to comply with the requirements of the Dodd-Frank Act or any regulations promulgated thereunder (even if the terms of that policy are broader than the requirements of the Dodd-Frank Act).

24. Withholding and Taxes. The Grantee shall be required to pay to the Company or any Affiliate and the Company or any Affiliate shall have the right and is hereby authorized to withhold, any applicable withholding taxes in respect of the Award or payment of Shares thereunder, or any payment or transfer under or with respect to the Award or Shares and to take such other action as may be necessary in the opinion of the Committee to satisfy all obligations for the payment of such withholding taxes. Unless the Grantee makes other arrangements that are satisfactory to the Committee to cover the Company's or its Affiliate's withholding obligations, at any time that taxes are required to be withheld in connection with this Award, the Company shall withhold Shares from this Award with a Fair Market Value equal to the amount required to satisfy the minimum tax withholding obligations applicable to Grantee relating to this Award.

The delivery of Shares under this Agreement shall be accelerated to pay any Federal Insurance Contributions Act ("FICA") tax imposed under Sections 3101, 3121(a), and Section 3121(v)(2) of the Code on compensation deferred under the Plan (the "FICA Amount"), as well as to pay the income tax at source on wages imposed under Section 3401 of the Code or the corresponding withholding provisions of applicable state, local, or foreign tax laws as a result of the payment of the FICA Amount, and to pay the additional income tax at source on wages attributable to the pyramiding Section 3401 of the Code wages and taxes. However, the total payment accelerated under this Section 24 acceleration provision must not exceed the number of whole Shares (rounded up for any fractional Shares) with a Fair Market Value equal to the aggregate of the FICA Amount and the income tax withholding related to such FICA Amount. The first delivery of Shares made with respect to the RSUs that occurs after the acceleration of Shares provided for in this paragraph shall be reduced by the number of Shares that were so accelerated.

25. Section 409A of the Code. This Agreement, together with the Plan, constitutes the entire agreement between the parties with respect to the subject matter hereof. The parties intend that this Agreement be, at all relevant times, compliant with (or exempt from) Section 409A of the Code and all other applicable laws, and, if the Grantee's interests hereunder are subject to Section 409A of the Code,

7

this Agreement shall be so interpreted and administered. In addition to the general amendment rights of the Company with respect to the Plan, the Company specifically retains the unilateral right (but not the obligation) to make, prospectively or retroactively, any amendment to this Agreement or any related

7

document as it deems necessary or desirable to more fully address issues in connection with compliance with (or exemption from) Section 409A of the Code and other laws. In no event, however, shall this section or any other provisions of this Agreement be construed to require the Company to provide any gross-up for the tax consequences of any provisions of, or payments under, this Agreement. Except as may be provided in another agreement to which the Company is bound, the Company and its Affiliates shall have no responsibility for tax or legal consequences to the Grantee (or the Grantee's beneficiaries) resulting from the terms or operation of this Agreement or the Plan.

26. Six-Month Delay in Payment. Notwithstanding anything in this Agreement to the contrary, if at the time of the Grantee's termination of Employment with the Company, the Grantee's interests hereunder are subject to Section 409A of the Code and the Grantee is a "specified employee" as defined in Section 409A of the Code, and the deferral of the commencement of any payments or benefits otherwise payable hereunder as a result of such termination of Employment is necessary in order to prevent the imposition of any accelerated or additional tax under Section 409A of the Code, then the Company will defer the commencement of the payment of any such payments or benefits hereunder (without any reduction in such payments or benefits ultimately paid or provided to the Grantee) until the date that is six (6) months following the Grantee's termination of Employment with the Company (or the earliest date as is permitted under Section 409A of the Code).

By Grantee's signature and the signature of the Company's representative below, or by Grantee's acceptance of this Award through the Company's online acceptance procedure, this Agreement shall be deemed to have been executed and delivered by the parties hereto as of the Grant Date. Grantee hereby acknowledges that the treatment of the RSUs upon a Change in Control, as set forth in Section 4(d) hereof, differs from and supersedes the treatment set forth in Section 12.2 of the Plan.

Grantee **Chart Industries, Inc.**

[[SIGNATURE]] By: [[SIGNATURE]]

Print Name: [[FIRSTNAME]].[[LASTNAME]] Its: [[TITLE]]

Date: [[SIGNATURE_DATE]] Date: [[SIGNATURE_DATE]]

8

Exhibit 21.1

**SUBSIDIARIES OF THE COMPANY
AND JURISDICTION OF INCORPORATION OR ORGANIZATION**

AdEdge Holdings, 423werks, LLC	Georgia Delaware
ACI Labrador GP Inc.	Canada
ACI Labrador Limited Partnership	Canada
ACI Ventures East Inc.	Canada
AdEdge India Water Technologies Private Limited	India
AdEdge Water Technologies, LLC	Georgia
Austcold Refrigeration Pty Limited	United Kingdom
BlueInGreen, LLC	Arkansas
Bond Acquisition Holdings Limited	United Kingdom
BOND CANADA HOLDINGS ACQUISITION CORP.	Canada
Buffalo Forge SA de CV	Mexico
Chart Asia Investment Company Limited	Hong Kong
Chart Asia, Inc.	Delaware
Chart Australia Pty Ltd	Australia
Chart Cryogenic Distribution Equipment (Changzhou) Company Limited* Limited	China
Chart Cryogenic Engineering Systems (Changzhou) Co., Ltd.	China
Chart D&S India Private Limited	India
Chart Energy & Chemicals, Inc.	Delaware
Chart Ferox, a.s.	Czech Republic
Chart Germany GmbH	Germany
Chart Inc.	Delaware
Chart Industries (Gibraltar) Limited	Gibraltar
Chart Industries Japan Co., Ltd.	Japan
Chart Industries Luxembourg S.à r.l.	Luxembourg
Chart Industries Limited	United Kingdom
Chart Industries (Malaysia) Sdn. Bhd.	Malaysia
Chart International Holdings, Inc.	Delaware
Chart International, Inc.	Delaware
Chart Italy Holdings S.r.l.	Italy
Chart Latin America S.A.S.	Colombia
Chart Lifecycle, Inc.	Delaware
Chart S.à r.l & Co. KG	Germany
ChartWater Brazil Ltda.	Brazil
Cofimco Industrial Fans India Private Ltd. ****	India
Cofimco Compressor Products International (Shanghai) Trading Co, Inc. Co., Ltd.	China
Cofimco S.r.l. Compressor Products International GmbH	Italy Germany
Compressor Products International Limited	United Kingdom
Compressor Products International LLC	Delaware
Compressor Products International South Korea Co. Ltd	South Korea
CPI-Liard SAS	France
Cryogenic Gas Technologies, Inc.	Pennsylvania
Cryo Diffusion S.A.S.	France
Cryo-Lease, LLC	Florida
CSC Cryogenic Service Center AB	Sweden
Earthly Labs, LLC	Delaware
ESAB Technology Limited	United Kingdom
Eric Spoor Consultants B.V.	Netherlands
Fema S.r.l.	Italy
Flow Instruments & Engineering GmbH	Germany
Fronti Fabrications, Inc.	Pennsylvania
GOFA Gocher Fahrzeugbau GmbH	Germany
GTC of Clarksville, LLC	Delaware
Hetsco, Inc.	Delaware
Hetsco Holdings, Inc.	Delaware
Hudson-Cofimco Limited	Hong Kong
Hudson Heat Transfer International, Inc.	Panama
Hudson Parent Corporation	Delaware

Flow Instruments & Engineering GmbH	Germany
Fronti Fabrications, Inc.	Pennsylvania
GOFA Gocher Fahrzeugbau GmbH	Germany
Granite Acquisition GmbH	Germany
Granite Canada Holdings Acquisition Corp.	Canada
Granite Holdings Global Limited	United Kingdom
Granite Holdings II B.V.	Netherlands
GTC of Clarksville, LLC	Delaware
Hetsco, Inc.	Delaware
Hetsco Holdings, Inc.	Delaware
Howden Africa (Proprietary) Limited	South Africa
Howden Africa Holdings Limited	South Africa
Howden Air and Gas India Private Limited	India
Howden Australia Pty Limited	Australia
Howden Axial Fans AB	Sweden
Howden Axial Fans ApS	Denmark
Howden BC Compressors	France
Howden Canada Inc.	Canada
Howden Chile SpA	Chile
Howden CKD Compressors s.r.o	Czech Republic
Howden Compressors Limited	Scotland
Howden Covent Fans Inc.	Canada
Howden Donkin (Proprietary) Limited	South Africa
Howden Engineering (S.E. Asia) Limited	Hong Kong
Howden Finance Limited	United Kingdom
Howden GmbH	Germany
Howden Group BV	Netherlands
Howden Group Limited	United Kingdom
Howden Group Netherlands BV	Netherlands
Howden Group South Africa Limited	South Africa
Howden Holdings ApS	Denmark
Howden Holdings BV	Netherlands
Howden Holdings Unlimited	United Kingdom
Howden Hua Engineering Company Limited	China
Howden Hungary Kft.	Hungary
Howden International Holdings BV	Netherlands
Howden Italy S.R.L.	Italy
Howden Japan Limited	Japan
Howden Korea Limited	South Korea
Howden Maintenance Partners Belgium nv	Belgium
Howden Maintenance Partners France	France
Howden Maintenance Partners nv	Belgium
Howden Maintenance Partners Wallonie nv	Belgium
Howden Melbourne Pty Limited	Victoria
Howden Mexico Calentadores Regenerativos SRL de CV	Mexico
Howden Middle East FZCO	United Arab Emirates
Howden Netherlands BV	Netherlands
Howden Perú SRL	Peru
Howden Poland sp. z o.o.	Poland
Howden SA Holdings Pty Ltd	South Africa
Howden Singapore Pte.Ltd.	Singapore
Howden Solyvent-Ventec SAS	France

Howden South America Ventiladores e Compressores Industria e Comercio Ltda	Brazil
Howden Spain SL	Spain
Howden Taiwan Company Limited	Taiwan
Howden Thomassen Australasia Pty Ltd	Australia
Howden Thomassen Comercio E Servicos de Compressores do Brasil Ltda	Brazil
Howden Thomassen Compressors BV	Netherlands
Howden Thomassen Service Europe BV	Netherlands
Howden Turbo Fans Oy	Finland
Howden Turbo GmbH	Germany
Howden Turbo UK Limited	United Kingdom
Howden Turkey Air and Gas Handling Makina Sanayi ve Ticaret Limited Şirketi	Turkey
Howden UK BV	Netherlands
Howden UK Limited	United Kingdom
Howden USA Company	Delaware
Howden Ventsim Pty Ltd	Australia
Howden Vietnam Company Limited	Vietnam
Howden Water Technology A/S	Denmark
Howden Zambia Limited	Zambia
HowMex Holdings S. de R.L. de C.V	Mexico
Hudson Heat Transfer International, Inc.	Panama
Hudson Parent Corporation	Delaware
Hudson Products Corporation	Texas
Hudson Products de Mexico, S.A. de C.V.*	Mexico
Hudson Products Holdings Inc.	Delaware
Hudson Products Holdings Cooperatief UA	Netherlands
Hylum-Chart Inc.	South Korea
Industrie Meccaniche di Bagnolo S.r.l.	Italy
Inmobiliaria Tepalcapa SA de CV	Mexico
James Howden & Company Limited	Scotland
James Howden & Godfrey Overseas Limited	Scotland
James Howden (Thailand) Limited	Thailand
James Howden Holdings (Pty) Limited	South Africa
L.A. Turbine	California
Maintenance Partners Morocco	Morocco
Maintenance Partners the Netherlands B.V.	Netherlands
Nanjing New Metallurgy Electric Engineering Co., Ltd.**	China
Prefontaine Properties, Inc.	New Hampshire
PT Howden Indonesia APAC	Indonesia
PT. Thermax*** Thermax	Indonesia
RCHPH Holdings, Inc.	Delaware
Skafl, LLC	Delaware
Skafl Cryogenics, Inc.	New Hampshire
Spencer Turbine Trading (Beijing) Co., Ltd.	China
Sustainable Energy Solutions, Inc.	Utah
Thermax, Inc.	Massachusetts
VCT Vogel GmbH	Germany
Ventilation Holding France SAS	France
VRV Asia Pacific Private Limited	India
VRV S.r.l.	Italy
VRV Services S.r.l. Weldcure Limited	Italy United Kingdom
Wintell S.A.	Belgium

*50% of equity interests owned indirectly by the Company.
**80% of equity interests owned indirectly by the Company.
***95% of equity interests owned indirectly by the Company.
****99.8% of equity interests owned indirectly by the Company.

1 Merged into Chart Inc. effective as of December 31, 2022, with Chart Inc. as surviving entity.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-232049 and 333-268666 No. 333-268666 on Form S-3 and Registration Statement Nos. 333-183031, and 333-219509 on Form S-8 of our reports dated February 24, 2023, February 28, 2024, relating to the financial statements of Chart Industries, Inc., and the effectiveness of Chart Industries, Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 10-K of Chart Industries, Inc. for the year ended December 31, 2022 December 31, 2023.

/s/ Deloitte & Touche LLP

Atlanta, Georgia
February 28, 2024

February 24, 2023

Exhibit 31.1

CERTIFICATION

I, Jillian C. Evanko, certify that:

1. I have reviewed this Annual Report on Form 10-K of Chart Industries, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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):
- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2023 February 28, 2024

/s/ Jillian C. Evanko
Jillian C. Evanko
Chief Executive Officer and President

Exhibit 31.2

CERTIFICATION

I, Joseph R. Brinkman, certify that:

1. I have reviewed this Annual Report on Form 10-K of Chart Industries, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2023 February 28, 2024

/s/ Joseph R. Brinkman
Joseph R. Brinkman
Vice President and Chief Financial Officer

Exhibit 32.1

**Certification 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)**

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), the undersigned officer of Chart Industries, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

- a. The Annual Report on Form 10-K for the period ended **December 31, 2022** **December 31, 2023** of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- b. The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Form 10-K.

Dated: **February 24, 2023** **February 28, 2024**

/s/ Jillian C. Evanko
Jillian C. Evanko
Chief Executive Officer and President

This written statement accompanies the Form 10-K pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934.

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

Exhibit 32.2

**Certification 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)**

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), the undersigned officer of Chart Industries, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

- a. The Annual Report on Form 10-K for the period ended **December 31, 2022** **December 31, 2023** of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- b. The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Form 10-K.

Dated: **February 24, 2023** **February 28, 2024**

/s/ Joseph R. Brinkman
Joseph R. Brinkman
Vice President and Chief Financial Officer

This written statement accompanies the Form 10-K pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934.

CHART INDUSTRIES, INC.
Incentive-Based Compensation Clawback Policy

The Board of Directors (the "Board") of Chart Industries, Inc. (the "Company") believes that it is in the best interests of the Company and its stockholders to adopt this Clawback Policy (the "Policy"), which provides for the recovery of certain incentive-based compensation in the event of an Accounting Restatement (as defined herein). This Policy is designed to comply with, and shall be interpreted to be consistent with, Section 10D of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), Rule 10D-1 promulgated under the Exchange Act ("Rule 10D-1") and Section 303A.14 of the New York Stock Exchange Listed Company Manual (the "Listing Standards").

1. Administration

Except as specifically set forth herein, this Policy shall be administered by the members of the Compensation Committee of the Board (together, such members of the Compensation Committee of the Board are referred to herein as the "Administrator"). The Administrator is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate or advisable for the administration of this Policy. Any determinations made by the Administrator shall be final and binding on all affected individuals and need not be uniform with respect to each individual covered by the Policy. In the administration of this Policy, the Administrator is authorized and directed to consult with the full Board or such other committees of the Board as may be necessary or appropriate as to matters within the scope of such other committee's responsibility and authority. Subject to any limitation of applicable law, the Administrator may authorize and empower any officer or employee of the Company to take any and all actions necessary or appropriate to carry out the purpose and intent of this Policy (other than with respect to any recovery under this Policy involving such officer or employee).

2. Definitions

As used in this Policy, the following definitions shall apply:

"Accounting Restatement" means an accounting restatement of the Company's financial statements due to the Company's material noncompliance with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

"Administrator" has the meaning set forth in Section 1 hereof.

"Applicable Period" means the three completed fiscal years immediately preceding the date on which the Company is required to prepare an Accounting Restatement, as well as any transition period (that results from a change in the Company's fiscal year) within or immediately following those three completed fiscal years (except that a transition period that comprises a period of at least nine months shall count as a completed fiscal year).

The "date on which the Company is required to prepare an Accounting Restatement" is the earlier to occur of (a) the date the Board, or such other Company body that has authority to conclude an Accounting Restatement is required, concludes or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement or (b) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement, in each case regardless of if or when the restated financial statements are filed.

"Covered Executives" are those persons currently or formerly designated as officers of the Company pursuant to Rule 16a-1(f) under the Exchange Act.

"Erroneously Awarded Compensation" has the meaning set forth in Section 5 of this Policy.

"Financial Reporting Measure" is any measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measure that is derived wholly or in part from such measure. Financial Reporting Measures include, but are not limited to, the following (and any measures derived from the following): Company stock price; total stockholder return ("TSR"); revenues; net income; operating income; profitability of one or more reportable segments; financial ratios; earnings before interest and taxes ("EBIT"); adjusted EBIT; earnings before interest, taxes, depreciation and amortization ("EBITDA"); adjusted EBITDA; funds from operations and adjusted funds from operations; liquidity measures (e.g., working capital, operating cash flow); return measures (e.g., return on invested capital, return on assets); and earnings measures (e.g., earnings per share). A Financial Reporting Measure need not be presented within the Company's financial statements or included in a filing with the Securities and Exchange Commission.

"Incentive-Based Compensation" means any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure. Incentive-Based Compensation is "received" for purposes of this Policy in the Company's fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of such Incentive-Based Compensation occurs after the end of that period.

3. Covered Executives; Incentive-Based Compensation

This Policy applies to Incentive-Based Compensation received by a Covered Executive (a) after beginning services as a Covered Executive; (b) if that person served as a Covered Executive at any time during the performance period for such Incentive-Based Compensation; and (c) while the Company had a listed class of securities on the New York Stock Exchange (the "NYSE").

4. Required Recoupment of Erroneously Awarded Compensation in the Event of an Accounting Restatement

In the event the Company is required to prepare an Accounting Restatement, the Company shall promptly recoup the amount of any Erroneously Awarded Compensation received by any Covered Executive, as calculated pursuant to Section 5 hereof, during the Applicable Period.

5. Erroneously Awarded Compensation: Amount Subject to Recovery

The amount of "Erroneously Awarded Compensation" subject to recovery under the Policy, as determined by the Administrator, is the amount of Incentive-Based Compensation received by the Covered Executive that exceeds the amount of Incentive-Based Compensation that would have been received by the Covered Executive had it been determined based on the restated amounts.

Erroneously Awarded Compensation shall be computed by the Administrator without regard to any taxes paid by the Covered Executive in respect of the Erroneously Awarded Compensation.

By way of example, with respect to any compensation plans or programs that take into account Incentive-Based Compensation, the amount of Erroneously Awarded Compensation subject to recovery hereunder includes, but is not limited to, the amount contributed to any notional account based on Erroneously Awarded Compensation and any earnings accrued to date on that notional amount.

For Incentive-Based Compensation based on stock price or TSR: (a) the Administrator shall determine the amount of Erroneously Awarded Compensation based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or TSR upon which the Incentive-Based Compensation was received; and (b) the Company shall maintain documentation of the determination of that reasonable estimate and provide such documentation to the NYSE.

6. Method of Recoupment

The Administrator shall determine, in its sole discretion, the timing and method for promptly recouping Erroneously Awarded Compensation hereunder, which may include without limitation (a) seeking reimbursement of all or part of any cash or equity-based award, (b) cancelling prior cash or equity-based awards, whether vested or unvested or paid or unpaid, (c) cancelling or offsetting against any planned future cash or equity-based

awards, (d) forfeiture of deferred compensation, subject to compliance with Section 409A of the Internal Revenue Code and the regulations promulgated thereunder and (e) any other method authorized by applicable law or contract. Subject to compliance with any applicable law, the Administrator may affect recovery under this Policy from any amount otherwise payable to the Covered Executive, including amounts payable to such individual under any otherwise applicable Company plan or program, including base salary, bonuses or commissions and compensation previously deferred by the Covered Executive.

The Company is authorized and directed pursuant to this Policy to recoup Erroneously Awarded Compensation in compliance with this Policy unless the Administrator has determined that recovery would be impracticable solely for the following limited reasons, and subject to the following procedural and disclosure requirements:

- The direct expense paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on expense of enforcement, the Administrator must make a reasonable attempt to recover such erroneously awarded compensation, document such reasonable attempt(s) to recover and provide that documentation to the NYSE; or
- Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

7. No Indemnification of Covered Executives

Notwithstanding the terms of any indemnification or insurance policy or any contractual arrangement with any Covered Executive that may be interpreted to the contrary, the Company shall not indemnify any Covered Executives against the loss of any Erroneously Awarded Compensation, including any payment or reimbursement for the cost of third-party insurance purchased by any Covered Executives to fund potential clawback obligations under this Policy.

8. Administrator Indemnification

Any members of the Administrator, and any other members of the Board who assist in the administration of this Policy, shall not be personally liable for any action, determination or interpretation made with respect to this Policy and shall be fully indemnified by the Company to the fullest extent under applicable law and Company policy with respect to any such action, determination or interpretation. The foregoing sentence shall not limit any other rights to indemnification of the members of the Board under applicable law or Company policy.

9. Effective Date; Retroactive Application

This Policy shall be effective as of November 29, 2023 (the "Effective Date"). The terms of this Policy shall apply to any Incentive-Based Compensation that is received by Covered Executives on or after the Effective Date, even if such Incentive-Based Compensation was approved, awarded, granted or paid to Covered Executives prior to the Effective Date. Without limiting the generality of Section 6 hereof, and subject to applicable law, the Administrator may affect recovery under this Policy from any amount of compensation approved, awarded, granted, payable or paid to the Covered Executive prior to, on or after the Effective Date.

10. Amendment; Termination

The Board may amend, modify, supplement, rescind or replace all or any portion of this Policy at any time and from time to time in its discretion, and shall amend this Policy as it deems necessary to comply with applicable law or any rules or standards adopted by the NYSE.

11. Other Recoupment Rights; Company Claims

The Board intends that this Policy shall be applied to the fullest extent of the law. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company under applicable law or pursuant to the terms of any similar policy in any employment agreement, equity award agreement, or similar agreement and any other legal remedies available to the Company.

Nothing contained in this Policy, and no recoupment or recovery as contemplated by this Policy, shall limit any claims, damages or other legal remedies the Company or any of its affiliates may have against a Covered Executive arising out of or resulting from any actions or omissions by the Covered Executive.

12. Successors

This Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators or other legal representatives.

13. Exhibit Filing Requirement

A copy of this Policy and any amendments thereto shall be posted on the Company's website and filed as an exhibit to the Company's Annual Report on Form 10-K.

DISCLAIMER

THE INFORMATION CONTAINED IN THE REFINITIV CORPORATE DISCLOSURES DELTA REPORT™ IS A COMPARISON OF TWO FINANCIALS PERIODIC REPORTS. THERE MAY BE MATERIAL ERRORS, OMISSIONS, OR INACCURACIES IN THE REPORT INCLUDING THE TEXT AND THE COMPARISON DATA AND TABLES. IN NO WAY DOES REFINITIV OR THE APPLICABLE COMPANY ASSUME ANY RESPONSIBILITY FOR ANY INVESTMENT OR OTHER DECISIONS MADE BASED UPON THE INFORMATION PROVIDED IN THIS REPORT. USERS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S ACTUAL SEC FILINGS BEFORE MAKING ANY INVESTMENT OR OTHER DECISIONS.

©2024, Refinitiv. All rights reserved. Patents Pending.