



2022
ANNUAL REPORT



ESCO TECHNOLOGIES INC.

ESCO Technologies is a global provider of highly-engineered products and solutions to diverse end-markets that include the defense, aerospace, space, wireless, consumer electronics, healthcare, automotive, electric utility, and renewable energy industries. The company consists of three technology-driven business segments — Aerospace & Defense, Utility Solutions Group, and RF Shielding & Test. Headquartered in St. Louis, Missouri, ESCO and its subsidiaries have offices and manufacturing facilities worldwide.



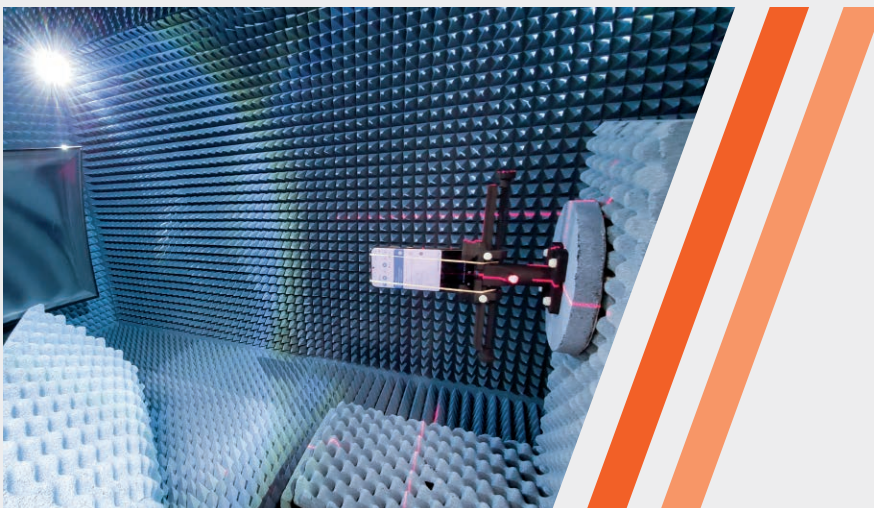
// Aerospace & Defense

Aerospace & Defense (A&D) provides highly-engineered hydraulic filtration systems, fluid control valves, machined components, and metal finishing for the aerospace, space, and defense industries. In addition, A&D designs and manufactures complex shock and vibration dampening tiles and signature reduction solutions that enhance the stealth capabilities of U.S. Navy submarines and surface ships.



// Utility Solutions Group

Utility Solutions Group (USG) offers industry-leading diagnostic, protection testing, and condition monitoring equipment, consulting and laboratory testing services, and data analytics vital for ongoing grid reliability and renewable energy project development. Our USG segment offers a complete range of solutions that efficiently measure asset health and ensure the reliable, safe, and secure delivery of power.



// RF Shielding & Test

RF Shielding & Test (Test) is an innovative supplier of test and measurement systems and shielded enclosures. Our comprehensive energy testing and management solutions identify, measure and contain magnetic, electromagnetic and acoustic energy, creating an environment that isolates and controls unintended energy emissions to insure immunity, compatibility and compliance with regulatory and industry-defined standards.

A Record Year

2022 was a year of record Revenue, Adjusted EPS, Entered Orders and Year-End Backlog as we saw recovery across our key end-markets and strong execution by our operating teams.

Persistent supply chain disruptions, inflationary impacts, and labor shortages continued to create global headwinds throughout the year. Navigating these market disruptions also presented a unique opportunity, and we demonstrated our ability to adapt to these changing conditions. Through teamwork and innovation, we were able to find solutions that enabled us to both support our customers and deliver historic operating results.

As the year progressed, business conditions began to stabilize in our end-markets most impacted by the pandemic. Increased activity from our North American utility customers and robust demand in renewables drove revenue growth in our USG segment. The steady return of air travel began to drive increased aerospace production rates. Recovery in these key end-markets combined with solid orders momentum across each of our business segments have us well-positioned to drive meaningful growth going forward.

2022 Sales

DOLLARS IN MILLIONS

41%

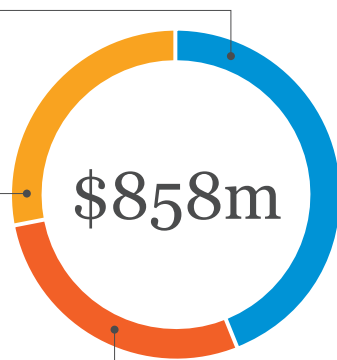
Aerospace & Defense:
\$351.4

32%

Utility Solutions Group:
\$278.4

27%

RF Shielding & Test:
\$227.7



2022 EBITDA – As Adjusted⁽¹⁾

DOLLARS IN MILLIONS

42%

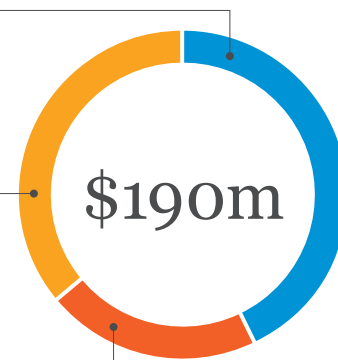
Aerospace & Defense:
\$80.1

38%

Utility Solutions Group:
\$72.0

20%

RF Shielding & Test:
\$38.0



(1) Excludes \$28.8 million of Corporate costs and \$1.7 million of charges associated with the Altanova and NEco acquisition inventory step-ups, severance at VACCO and NRG, and Corporate acquisition and management transition costs.

FINANCIAL HIGHLIGHTS FROM CONTINUING OPERATIONS⁽¹⁾

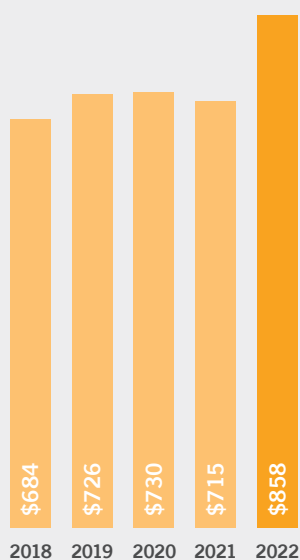
DOLLARS IN MILLIONS, EXCEPT PER SHARE AMOUNTS	2018	2019	2020	2021	2022
Net Sales	\$ 683.7	\$ 726.0	\$ 730.5	\$ 715.4	\$ 857.5
Entered Orders	695.6	822.5	796.3	796.3	960.5
Earnings Per Share – GAAP	3.31	2.97	0.88	2.42	3.16
Earnings Per Share – As Adjusted ⁽²⁾	2.54	2.95	2.67	2.59	3.21

Capital Performance (As of September 30)

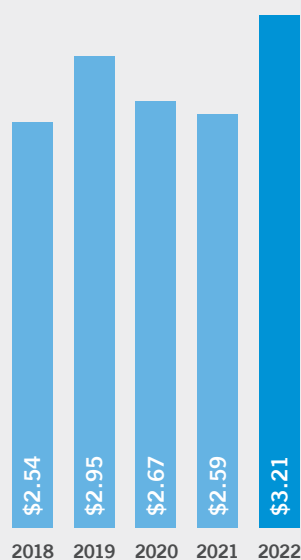
Net Debt	\$ 190	\$ 223	\$ 10	\$ 98	\$ 55
Leverage Ratio	1.72	1.68	0.47	1.03	0.78
Cash Flow from Operating Activities	84	101	109	123	135

Net Sales

IN MILLIONS

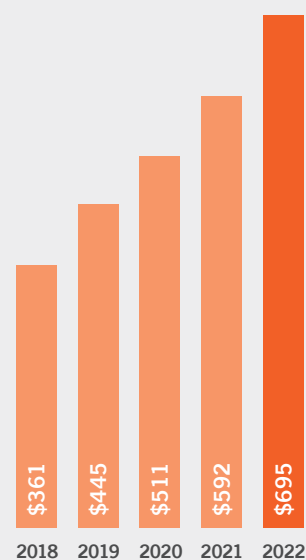


Earnings Per Share – As Adjusted⁽²⁾



Ending Backlog

IN MILLIONS



(1) Financial Highlights exclude Discontinued Operations – Technical Packaging Segment sale was completed 12/31/19.

(2) EPS – As adjusted excludes \$0.05 per share of charges associated with the Altanova and NEco acquisition inventory step-ups, severance at VACCO and NRG, and Corporate acquisition and management transition costs in 2022, \$0.17 per share mainly consisting of management transition and acquisition costs at Corporate, restructuring costs primarily within the USG segment, and purchase accounting adjustments related to the Phenix and Altanova acquisitions, partially offset by the final settlement from the sale of the Doble Watertown facility in 2021, a \$1.55 per share charge related to the pension plan termination and \$0.24 per share of charges primarily within the USG segment related to facility consolidation, asset impairment, severance, and incremental costs associated with COVID-19 in 2020, \$0.02 per share of income primarily related to the gain on the sale of the Doble Watertown property, partially offset by restructuring charges at Doble, PTI and VACCO in 2019, and \$0.017 per share of restructuring charges and (\$0.94) per share net tax benefit resulting from the implementation of U.S. Tax Reform in 2018.

LETTER TO SHAREHOLDERS

In 2022 we delivered record sales, orders, year-end backlog and Adjusted EPS. Given the continuing global headwinds, we feel great about our ability to navigate through economic disruptions to deliver significant revenue growth and solid operating results.

The bottom line is that despite considerable challenges, all three of our business segments delivered meaningfully improved results that met or exceeded our initial guidance. Orders strength across each of our major end-markets continued to drive backlog growth and gives us confidence in the sustainable long-term economic viability of our diverse product offerings.

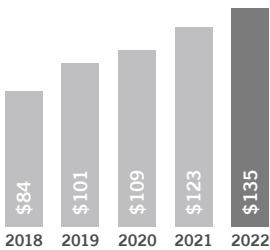
Financials

Broad orders strength drove solid revenue growth and margin improvement in 2022. With \$961 million in orders, our ending backlog increased 17 percent to \$695 million. Sales increased 20 percent to \$858 million, with 13 percent organic growth and 7 percent related to contributions from recent acquisitions (Altanova, Phenix, and NEco). The organic growth was primarily driven by commercial aerospace and utility markets finally recovering from pandemic impacts, continued strength in renewables, and power filter, medical and test and measurement chamber volume at Test.

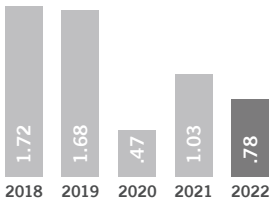
Our Adjusted EPS increased 24 percent to \$3.21 per share and Adjusted EBITDA increased 23 percent to \$161 million. Our Adjusted EBITDA margin increased a half point to 18.8 percent, with leverage on higher revenue driving the improvement.

From a liquidity standpoint, we generated \$135 million of cash flow from operations resulting in a 108 percent free cash flow conversion rate. During 2022, we opportunistically repurchased approximately 257,500 shares of common stock for \$20 million. With our focus on working capital improvement and cash flow generation, we ended the year with a leverage ratio of ~0.78x and \$589 million in liquidity. We remain well-positioned to fund internal engineering programs and capital investments to drive growth organically while also having the capability to expand through acquisitions. We continually evaluate a solid pipeline of M&A opportunities with the intent to strengthen our business portfolio and drive long-term shareholder value.

Cash Flow from Operating Activities
IN MILLIONS



Leverage Ratio





AEROSPACE & DEFENSE

A&D sales increased 12 percent to \$351 million, with 10% organic growth being driven by the recovery in commercial aerospace, as well as strength in Navy and space, and 2 percent related to the NEco acquisition. Adjusted EBITDA increased 19 percent to \$80 million (23 percent margin). Orders strength throughout the year resulted in a book-to-bill of 1.12 and record year-end backlog of \$408 million.

In commercial aerospace the steady return of domestic passenger demand resulted in solid orders growth driven by increased single-aisle aircraft build rates at Boeing and Airbus. We also saw increased orders as demand for the A350 widebody began to recover. In an era of rising fuel costs, airlines are now looking to fuel-efficient widebodies like the A350 for their long-haul needs. On the MRO side, Mayday Manufacturing saw solid growth globally related to its unique solutions which aid customers by reducing the complexity of their business operations.

In defense aerospace PTI Technologies received its largest one-year order to date for their proprietary 421[®] Metal Fiber Media filters in support of the U.S. Army's Black Hawk and Apache helicopter fleets totaling over 40,000 filter elements. This product was developed in cooperation with the U.S. Army to provide a superior level of fluid cleanliness in the dynamic environments seen by military aircraft. In FY22, this filter media was also chosen by a major engine manufacturer for a next-generation commercial aircraft development. The ability of this media to support fluid filtration at high temperatures will enable next generation engines to be more fuel efficient and to have lower emissions.

Early in the year we acquired Networks Electronic Company (NEco), an industry leader in miniature Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) industry. NEco received its first major order as a part of ESCO from Martin Baker in support of their ejection seat upgrade program. NEco will be a part of the PTI business and is a nice expansion of their capabilities.

In space, VACCO hardware supported NASA's successful Double Asteroid Redirection Test (DART) mission. DART was the first-ever mission dedicated to investigating and demonstrating a method of asteroid deflection by changing an asteroid's motion in space through kinetic impact. VACCO played a critical role through providing propulsion components for the main spacecraft and a complete cold gas Micro-Propulsion System (MiPS) for the accompanying cubesat which recorded the event and its aftereffects for future analysis.

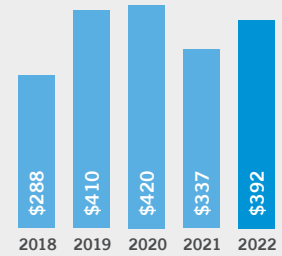
We continue to be a key supplier of vital stealth components on U.S. Navy submarines. VACCO, Globe Composite Solutions and Westland Technologies combine to provide critical quiet technology valves, Special Hull Treatment (SHT), and shock and vibration dampening systems that reduce acoustic signatures and modify signal emissions. During the year we continued to support the ongoing Virginia Class production and continued receiving initial orders for content on the new Columbia Class platform.



AEROSPACE & DEFENSE

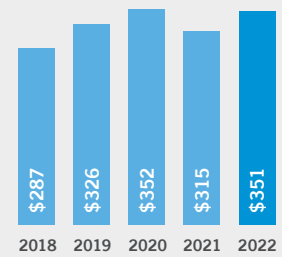
// Entered Orders

IN MILLIONS



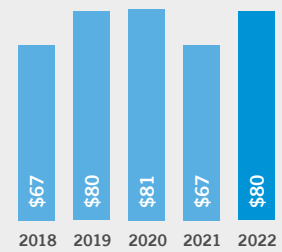
// Sales

IN MILLIONS



// EBITDA – As Adjusted*

IN MILLIONS



* Excludes \$0.6 million of NEco acquisition inventory step-up and VACCO severance charges in 2022, \$0.5 million of ATM acquisition inventory step-up and restructuring charges in 2021, \$1.4 million primarily related to severance and incremental costs associated with COVID-19 in 2020, \$1.2 million in inventory step-up and restructuring charges in 2019, and \$0.8 million in restructuring charges in 2018.





UTILITY SOLUTIONS GROUP

USG sales increased 37 percent to \$278 million, with 14 percent organic growth being driven by increased electric utility and renewables spending, and 23 percent related to the impact of the Altanova and Phenix acquisitions. Adjusted EBITDA increased 29 percent to \$72 million (26 percent margin). With \$315 million in entered orders and a book-to-bill of 1.13, USG ended the year with \$128 million in backlog.

Doble Engineering (Doble) continued its focus on new product development, launching key new technologies aimed at providing electric utility teams with intuitive new tools for analyzing digital substation networks. In 2022, Doble introduced the F6880 Digital Network Analyzer and the Calisto® R9 Dissolved Gas Analyzer (DGA) Monitor. The F6880 is a compact lightweight instrument that enables power and utility teams to efficiently troubleshoot communications and network performance issues allowing them to quickly discern whether

abnormal signal qualities in substation networks are caused by conditions on the power system or anomalies in digital traffic. The Calisto R9 DGA Monitor has a new patented design that offers high accuracy and low long-term maintenance costs. It uses a new differential infrared photoacoustic spectroscopy method which provides accurate measurements and utilizes water vapor to calibrate and maintain the accuracy of gas measurements over time.

Doble continued to integrate the Altanova and Phenix business into the USG segment throughout the year. In 2022, USG won its first major HV Cable monitoring project in North America utilizing Altanova's technology. This is a concrete example of the synergistic cross-selling opportunities that exist as we go to market domestically and internationally with a broader product portfolio.

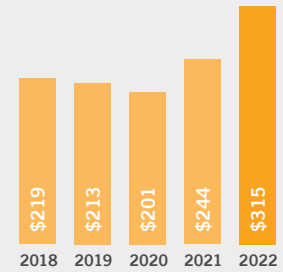
NRG saw significant orders and revenue growth in both wind and solar in 2022. Orders increased 52 percent to over \$50 million and revenue increased 24 percent to \$43 million. This represented the second consecutive year of significant growth for NRG. Last year the business left the pandemic with strong momentum and that trend continued in 2022 as the cost of wind and solar is now at parity with traditional generation sources in more regions than ever. In addition, several key geographic trends are now driving sustained renewables growth: the Inflation Reduction Act is resulting in a significant uptick in domestic wind and solar activity with NRG's largest U.S. customers; in EMEA NRG is winning new wind and solar projects with large customers and developers who are increasing their market share in various regions; and in China, the government released a new 5-year plan with aggressive goals for wind and solar that is driving new project wins.



UTILITY SOLUTIONS GROUP

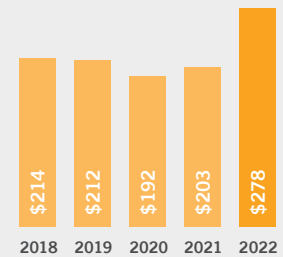
// Entered Orders

IN MILLIONS



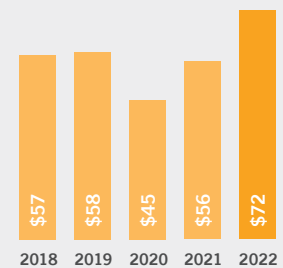
// Sales

IN MILLIONS



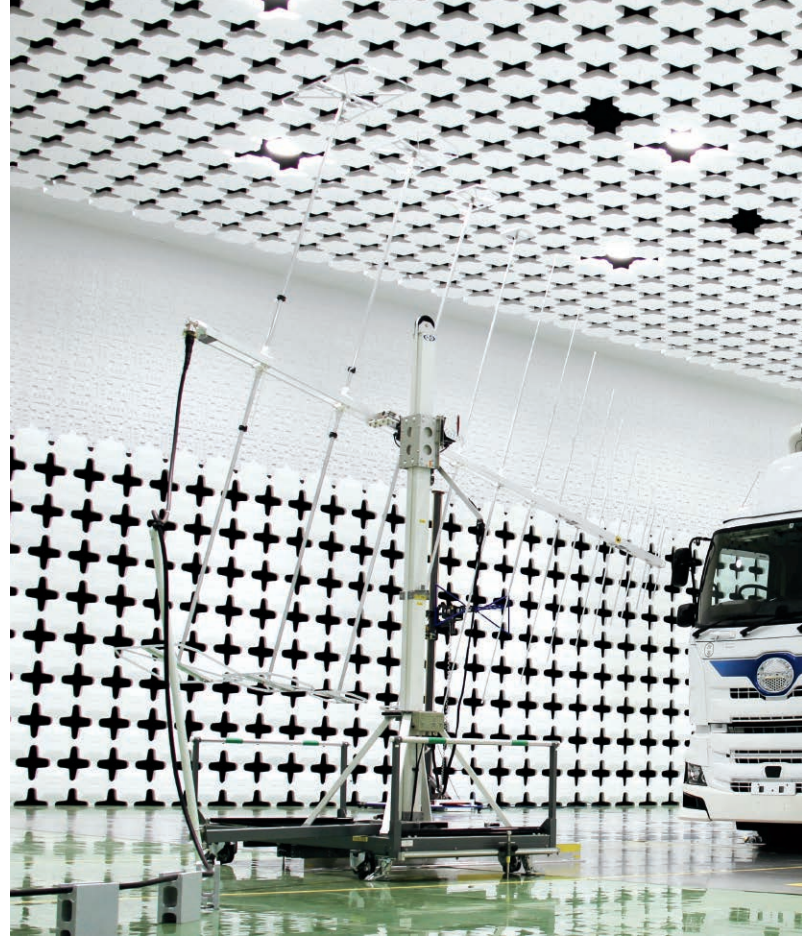
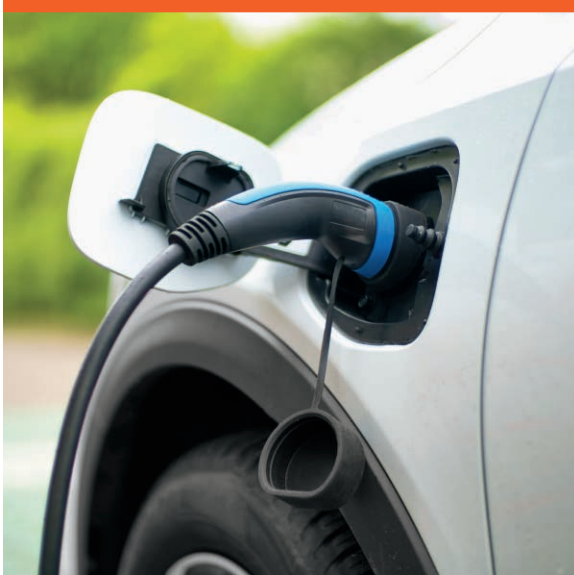
// EBITDA – As Adjusted*

IN MILLIONS



* Excludes \$0.5 million of Altanova acquisition inventory step-up and NRG severance charges in 2022, \$1.5 million of facility consolidation, inventory step-up and restructuring charges, partially offset by the final settlement from the sale of the Doble Watertown facility in 2021, \$6.6 million of facility consolidation, asset impairment, severance, and incremental costs associated with COVID-19 in 2020, \$5.9 million gain related to the sale of Doble Watertown property, partially offset by restructuring charges in 2019, and \$3.0 million in restructuring charges in 2018.





RF SHIELDING & TEST

Test sales increased 15 percent to a record \$228 million, driven by solid growth in powerline filters, medical shielding, and test and measurement projects. Higher revenue drove a 16 percent increase in EBITDA to \$38 million (17 percent margin). Throughout the challenges of the past few years, Test has maintained their margins while being faced with inflationary pressures and significant material and labor availability challenges. With record entered orders of \$253 million and a book-to-bill of 1.11, Test ended the year with record year-end backlog of \$159 million.

Test continues to maintain a strong position in the 5G market and is seeing strong demand for upgrades of existing systems and an increasing need for unique test systems driven by the ever-expanding types of industrial and consumer products being developed.

The automotive market continues to present growth opportunities driven by the demand for electric vehicles (EV) and the ongoing development of autonomous vehicles (AV). We continue to provide successful testing solutions for companies involved in EV development, especially in China. In addition, our work with international standards committees to develop standards and address the numerous challenges associated with AVs has allowed us to develop unique technologies and solutions that serve this emerging market.

The healthcare market has continued to rebound from the pandemic as hospitals return to expanding their MRI capabilities. In addition, we have successfully developed a number of unique shielding solutions for high-end hospitals, universities and research institutes. Our continued success in providing turnkey shielding

for intraoperative imaging solutions has made us a leader in this rapidly developing field.

We continue to see increasing interest in Electromagnetic Pulse (EMP) protection and our line of Red Edge™ power line filters. This demand is being driven by the need to store more data in data centers and a surge in the construction of new data centers to keep up with demand.

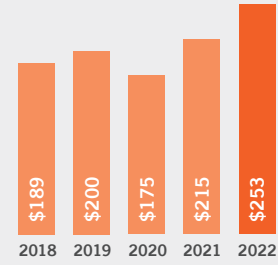
Test serves the needs of manufacturers across numerous growing end-markets that require its unique testing technologies to support their new product development programs. Test employees continue to be very active on standards committees and are working with a variety of the new product and service providers to develop and deliver the next generation of testing solutions that meet both their needs and industry defined standards.



RF SHIELDING & TEST

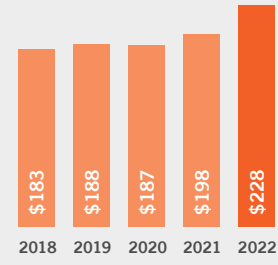
// Entered Orders

IN MILLIONS



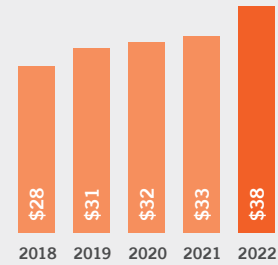
// Sales

IN MILLIONS



// EBITDA – As Adjusted*

IN MILLIONS



* Excludes \$0.1 million of incremental costs associated with COVID-19 in 2020.





Vic Richey (center)
Chairman, Chief Executive
Officer and President

Chris Tucker (left)
Senior Vice President &
Chief Financial Officer

Dave Schatz (right)
Senior Vice President,
Secretary & General Counsel

ESG Update

At ESCO, we understand the fundamental interdependence between the resiliency of our environment and the success of our company. In September we published our 2021 ESG Report, presenting new developments in our ESG program, including a more diverse Board, increased ESG oversight by our Board, the formation of our new ESG Committee, and releasing two years of environmental data. This represents a positive step for ESCO as we navigate the ESG landscape with a pragmatic approach that strengthens our governance and continues to prepare the company for future requirements in this area.

Moving Forward

Our successes this year were driven by the dedication of our highly skilled work force. It was through their creative efforts to work through challenges and find solutions, that we were able to deliver record operating results. These results were a testament to the ingenuity and determination of our employees who worked diligently to overcome the impacts of significant economic disruptions. This year was very much a team effort, and I want to thank our employees for their hard work and dedication in support of both our company and our customers.

As we announced in September, I will be retiring from my roles as CEO and President effective December 31, 2022. I have been with the company for 37 years, serving as CEO for the last 20 years and am proud of the work that has been accomplished over this time. Today ESCO is a global provider of technology-driven businesses with market leading products and solutions across diverse end-markets. I will continue as Executive Chairman of the Board during a transition period as Bryan Sayler assumes the roles of CEO and President. Bryan is an outstanding leader with a broad understanding of our businesses and industries. He has served as President of our USG segment for the past 6 years, and prior to that held senior leadership roles in our Test Segment for over 20 years. Bryan has played a key role in strategically building out our utility segment and is uniquely qualified to lead ESCO's continuing evolution as a company. It's been a privilege to serve as CEO and as my tenure winds down, I am excited to see what the future holds as I am confident ESCO is well-positioned to deliver long-term shareholder value.

Vic Richey
Chairman, Chief Executive Officer & President

MANAGEMENT AND BOARD OF DIRECTORS

Executive Officers

Vic Richey
Chairman, Chief Executive
Officer & President

Chris Tucker
Senior Vice President
& Chief Financial Officer

Dave Schatz
Senior Vice President,
Secretary & General Counsel

Corporate Staff

Deborah Boniske
Vice President
Human Resources

Mark Dunger
Vice President
Planning & Development

Charles Kretschmer
Vice President

Michele Marren
Vice President &
Corporate Controller

Lara Crews
Vice President &
Treasurer

Kelly Kennedy
Vice President
Tax

Kate Lowrey
Vice President
Investor Relations

Operating Executives

Mike Alfred
President
Crissair, Inc.

Rowland Ellis
President
PTI Technologies Inc.

May Scally
Chief Operating Officer
Morgan Schaffer Ltd.

Evan Vogel
President
NRG Systems, Inc.

Bruce Butler
President
ETS-Lindgren Inc.

Joe McCadden
President Globe Composite
Solutions, LLC

Tom Shaw
President
Mayday Manufacturing Co.

Sam Chapetta
Aerospace & Defense
Group President

Bryan Saylor
Utility Solutions Group
President & President
Doble Engineering Company

Matt Stafford
President
VACCO Industries

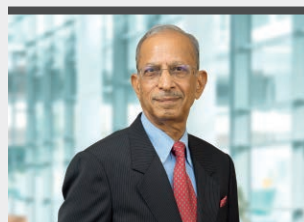
Board of Directors



Patrick M. Dewar^{2,3}
Chief Executive
The Trenton Group, LLC



Janice L. Hess⁴
Retired President of the
Engineered Systems Segment
Teledyne Technologies Inc.



Vinod M. Khilnani^{2,3}
Retired Executive Chairman
CTS Corporation



Leon J. Olivier⁴
Retired Executive
Vice President
Eversource Energy



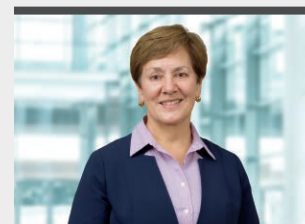
Robert J. Phillippy^{2,4}
Executive Advisor;
Former President and
Chief Executive Officer
of Newport Corporation



Victor L. Richey¹
Chairman, Chief Executive
Officer & President



James M. Stolze^{1,2,3}
Retired Vice President &
Chief Financial Officer
Stereotaxis, Inc.



Gloria L. Valdez^{3,4}
Retired Deputy Assistant
Secretary of the Navy

1 Executive Committee
2 Audit and Finance Committee

3 Human Resources and
Compensation Committee
4 Nominating and Corporate
Governance Committee

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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 September 30, 2022

OR

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

For the transition period from _____ to _____

Commission file number: 1-10596

ESCO Technologies Inc.

(Exact name of registrant as specified in its charter)

Missouri
(State or other jurisdiction
of incorporation or organization)

43-1554045
(I.R.S. Employer
Identification No.)

9900A Clayton Road
St. Louis, Missouri
(Address of principal executive offices)

63124-1186
(Zip Code)

Registrant's telephone number, including area code:
(314) 213-7200

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.01 per share	ESE	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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer

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.

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

Aggregate market value of the Common Stock held by non-affiliates of the registrant as of the close of trading on March 31, 2022, the last business day of the registrant’s most recently completed second fiscal quarter, based on the New York Stock Exchange closing price on March 31, 2022: approximately \$1,784,000,000.*

*For purpose of this calculation only, without determining whether the following are affiliates of the registrant, the registrant has assumed that (i) its directors and executive officers are affiliates, and (ii) no party who has filed a Schedule 13D or 13G is an affiliate.

Number of shares of Common Stock outstanding at November 13, 2022: 25,885,528

DOCUMENTS INCORPORATED BY REFERENCE:

Part III of this Report incorporates by reference certain portions of the registrant’s definitive Proxy Statement for its 2023 Annual Meeting of Shareholders, which the registrant currently anticipates first sending to shareholders on or about December 14, 2022 (hereinafter, the “2022 Proxy Statement”).

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FORWARD-LOOKING INFORMATION

Statements contained in this Form 10-K regarding future events and the Company's future results that are based on current expectations, estimates, forecasts and projections about the Company's performance and the industries in which the Company operates are considered "forward-looking statements" within the meaning of the safe harbor provisions of the Federal securities laws. These include, without limitation, statements about: the effects of the continuing COVID-19 pandemic and its known or unknown variants on the Company's business and results of operations; the adequacy of the Company's buildings, machinery and equipment; the adequacy of the Company's credit facilities and future cash flows; the outcome of litigation, claims and charges; future costs relating to environmental matters; repayment of debt within the next twelve months; the outlook for all or any part of the Company's business, including amounts, timing and sources of future sales, revenues, sales growth, and comparisons with the current year; interest on Company debt obligations; the ability of expected hedging gains or losses to be offset by losses or gains on related underlying exposures; the Company's ability to increase shareholder value; acquisitions; income tax expense and the Company's expected effective tax rate; the recognition of unrecognized compensation costs related to share-based compensation arrangements; the Company's exposure to market risk related to interest rates and to foreign currency exchange risk; the likelihood of future variations in the Company's assumptions or estimates used in recording contracts and expected costs at completion under the percentage of completion method; the Company's estimates and assumptions used in the preparation of its financial statements; costs and estimated earnings from long-term contracts; valuation of inventories; estimates of uncollectible accounts receivable; the risk of goodwill impairment; the Company's estimates utilized in software revenue recognition, non-cash depreciation and the amortization of intangible assets; the valuation of deferred tax assets; estimates of future cash flows and fair values in connection with the risk of goodwill impairment; amounts of NOL not realizable and the timing and amount of the reduction of unrecognized tax benefits; the effects of implementing recently issued accounting pronouncements; and any other statements contained herein which are not strictly historical. Words such as expects, anticipates, targets, goals, projects, intends, plans, believes, estimates, variations of such words, and similar expressions are intended to identify such forward-looking statements.

Investors are cautioned that such statements are only predictions and speak only as of the date of this Form 10-K, and the Company undertakes no duty to update the information in this Form 10-K except as may be required by applicable laws or regulations. The Company's actual results in the future may differ materially from those projected in the forward-looking statements due to risks and uncertainties that exist in the Company's operations and business environment, including but not limited to those described herein under "Item 1A, Risk Factors," and the following: the duration, scope and effects of the COVID-19 pandemic and its variants, including the impact of mandates or other restrictive protocols on our business and workforce and the availability and acceptance of effective vaccines by enough of the U.S. and the world's population to curtail or alleviate the seriousness of the pandemic; the impacts of climate change and related regulation of greenhouse gases, the impacts of labor disputes, civil disorder, wars, elections, political changes, tariffs and trade disputes, terrorist activities, cyberattacks or natural disasters on the Company's operations and those of the Company's customers and suppliers; disruptions in manufacturing or delivery arrangements due to shortages or unavailability of materials or components or supply chain disruptions; inability to access work sites; the timing and content of future customer orders; the appropriation and allocation of Government funds; the termination for convenience of Government and other customer contracts or orders; the timing and magnitude of future contract awards; weakening of economic conditions in served markets; the success of the Company's competitors; changes in customer demands or customer insolvencies; competition; intellectual property rights; technical difficulties or data breaches; the availability of selected acquisitions; defaults by customers; performance issues with key customers, suppliers and subcontractors; material changes in the costs and availability of certain raw materials; material changes in the cost of credit; changes in laws and regulations including but not limited to changes in accounting standards and taxation requirements; costs relating to environmental matters; litigation uncertainty; the Company's inability to successfully execute internal restructuring and other plans; and the integration and performance of recently acquired businesses.

PART I

Item 1. Business

The Company

The Registrant is ESCO Technologies Inc., sometimes referred to in this report as ESCO. Except where the context indicates otherwise, the terms “Company”, “we”, “our” and “us” are used in this report to refer to ESCO together with its subsidiaries through which its businesses are conducted. We are:

- A global provider of highly engineered filtration and fluid control products and integrated propulsion systems for the aviation, navy, space and process markets worldwide, as well as composite-based products and solutions for navy, defense and industrial customers;
- An industry leader in radio frequency (RF) shielding and electromagnetic compatibility (EMC) test products; and
- A provider of diagnostic instruments, software and services for the benefit of industrial power users and the electric utility and renewable energy industries.

Our business is focused on generating predictable and profitable long-term growth through continued innovation and expansion of our product offerings across each of our business segments. We conduct our business through a number of wholly-owned direct and indirect subsidiaries. Our corporate strategy is centered on a multi-segment approach designed to enhance the strength and sustainability of sales and earnings growth by providing lower risk through diversification. Our stock is listed on the New York Stock Exchange, where its ticker symbol is “ESE”.

Our fiscal year ends September 30. Throughout this Annual Report, unless the context indicates otherwise, references to a year (for example 2022) refer to our fiscal year ending on September 30 of that year, and references to the “Consolidated Financial Statements” refer to our Consolidated Financial statements included in the Financial Information section of this Annual Report beginning on page F-1, an Index to which is provided on page F-1.

We classify our business operations into three segments for financial reporting purposes, although for reporting certain financial information we treat Corporate activities as a separate segment. Our three operating segments during 2022, together with the significant domestic and foreign operating subsidiaries within each segment, are as follows:

Aerospace & Defense (A&D):

VACCO Industries (VACCO)

PTI Technologies Inc. (PTI)

Crissair, Inc. (Crissair)

Globe Composite Solutions, LLC (Globe)

Mayday Manufacturing Co. (Mayday) (includes former subsidiary Hi-Tech Metals, Inc., which was merged into Mayday effective December 31, 2021)

Networks Electronic Co. (NEco)

Westland Technologies, Inc. (Westland)

Utility Solutions Group (USG):

Doble Engineering Company

I.S.A. – Altanova Group S.r.l. and affiliates (Altanova)

Morgan Schaffer Ltd. (Morgan Schaffer)

NRG Systems, Inc. (NRG)

Except as the context otherwise indicates, the term “Doble” as used herein includes Doble Engineering Company and ESCO’s other USG subsidiaries except NRG.

RF Shielding and Test (Test):

ETS-Lindgren Inc.

Except as the context otherwise indicates, the term “ETS-Lindgren” as used herein includes ETS-Lindgren Inc. and ESCO’s other Test segment subsidiaries.

Our operating subsidiaries are engaged primarily in the research, development, manufacture, sale and support of the products and systems described below. Their respective businesses are subject to a number of risks and uncertainties,

including without limitation those discussed in Item 1A, “Risk Factors.” See also Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Forward-Looking Information.”

We are continually seeking ways to reduce our overall operating costs, streamline business processes and enhance the branding of our products and services. For example, during 2020 Doble consolidated its headquarters operations into a single, more cost-efficient facility in Marlborough, Massachusetts, and in 2021 it closed its facility in Toronto, Ontario and consolidated its Manta product line into its existing production capacity for Doble instruments.

We are also continually seeking opportunities to supplement our growth by making strategic acquisitions. In October 2020 we acquired Advanced Technology Machining, Inc. (ATM) and its sister company TECC Grinding, Inc.; in July 2021 we acquired I.S.A Altanova Group S.r.l. and its affiliated companies (Altanova); in August 2021 we acquired the assets of Phenix Technologies Inc. (Phenix); and in November 2021 we acquired Networks Electronic Company, LLC (NEco), a provider of miniature electro-explosive components and subsystems supporting mission, flight, and life-critical applications to the aerospace and defense end-markets. Information about these acquired businesses is provided in the following section, “Products,” and in Note 2 to the Consolidated Financial Statements.

In December 2019, we sold the businesses comprising our former Technical Packaging segment and used the proceeds from the sale to pay down debt and for other corporate purposes. The Technical Packaging segment was reported as Discontinued Operations in 2020. See Note 3 to the Consolidated Financial Statements.

Products

Our principal products are described below. See Note 12 to the Consolidated Financial Statements for financial information regarding business segments and 10% customers.

A&D

Beginning in the first quarter of 2020, we renamed our Filtration/Fluid Flow segment as Aerospace & Defense to better reflect the composition of the segment’s products, end markets and customer characteristics. The A&D segment’s individual legal and operating entities and historical financial results are unchanged from what was formerly presented as Filtration/Fluid Flow.

The A&D segment accounted for approximately 41%, 44% and 48% of our total revenue in 2022, 2021 and 2020, respectively. This segment has seven facilities in the United States and one in Mexico.

Our companies within this segment primarily design and manufacture specialty filtration, fluid control and naval products, including hydraulic filter elements, fluid control devices, and precision-tolerance machined components used in aerospace and defense applications, unique filter mechanisms used in micro-propulsion devices for satellites, custom designed filters for manned aircraft and submarines, products and systems to reduce vibration and/or acoustic signatures and otherwise reduce or obscure a vessel’s signature, and other communications, sealing, surface control and hydrodynamic related applications to enhance U.S. Navy maritime survivability; and miniature electro-explosive devices for military aircraft ejection seats and missile arming devices.

USG

Our USG segment accounted for approximately 32%, 28% and 26% of our total revenue in 2022, 2021 and 2020, respectively. This segment has seven facilities in the United States, one in Canada, and eight outside North America.

Doble is an industry leader in the development, manufacture and delivery of diagnostic testing and data management solutions that enable electric power grid operators to assess the integrity of high-voltage power delivery equipment. It combines three core elements for customers – diagnostic test instruments and condition monitoring systems, expert consulting, and testing services. The acquisition of Phenix’s assets has enhanced Doble’s high voltage, high current, high power test systems, components and solutions. NRG is a global market leader in the design and manufacture of decision support tools for the renewable energy industry, primarily wind and solar.

Altanova, headquartered in Taino, Italy, provides products and services in more than 100 countries. Its strong market share in Europe and Asia creates a significant international platform for our USG segment and fills important product gaps and geographies not previously served by our existing products and solutions. Doble’s offices outside North America have been consolidated with Altanova’s, and going forward we expect that Altanova will represent their combined businesses in markets outside the U.S. and Canada.

Test

Our Test segment accounted for approximately 27%, 28% and 26% of our total revenue in 2022, 2021 and 2020, respectively. This segment has four facilities in the United States and six outside the United States.

ETS-Lindgren is an industry leader in designing and manufacturing products which provide its customers with the ability to measure and contain magnetic, electromagnetic and acoustic energy. It supplies its customers with a broad range of isolated environments and turnkey systems, including RF test facilities, acoustic test enclosures, RF and magnetically shielded rooms, secure communication facilities, RF measurement systems and broadcast and recording studios. Many of these facilities include proprietary features such as shielded doors and windows. ETS-Lindgren also provides the design, program management, installation and integration services required to successfully complete these types of facilities.

ETS-Lindgren also supplies customers with a broad range of components including RF absorptive materials, RF filters, active compensation systems, antennas, antenna masts, turntables and electric and magnetic probes, RF test cells, proprietary measurement software and other test accessories required to perform a variety of tests. ETS-Lindgren offers a variety of services including calibration for antennas and field probes, chamber certification, field surveys, customer training and a variety of product tests. ETS-Lindgren's test labs are accredited by the following organizations: American Association for Laboratory Accreditation, National Voluntary Laboratory Accreditation Program and CTIA-The Wireless Association Accredited Test Lab. ETS-Lindgren serves the acoustics, medical, health and safety, electronics, wireless communications, automotive and defense markets.

Marketing and Sales

Our products generally are distributed to customers through a domestic and foreign network of distributors, sales representatives, direct sales teams and in-house sales personnel.

Our sales to international customers accounted for approximately 30%, 28% and 27% of our total revenue in 2022, 2021 and 2020, respectively. See Note 12 to the Consolidated Financial Statements for financial information by geographic area. See Item 1A, "Risk Factors," for a discussion of risks related to our international operations.

Government Contracts

Some of our products are sold to the U.S. Government either directly under contracts with the Army, Navy and Air Force as well as other Government agencies or indirectly under subcontracts with their prime contractors. Direct and indirect sales to the U.S. Government, primarily related to the A&D segment, accounted for approximately 27%, 26% and 28% of our total revenue in 2022, 2021 and 2020, respectively.

Our Government contracts primarily include firm fixed-price contracts under which work is performed and paid for at a fixed amount without adjustment for the actual costs experienced in connection with the contracts. All Government prime contracts and virtually all of our Government subcontracts provide that they may be terminated at the convenience of the Government or the customer. Upon a termination for convenience, we are entitled to receive equitable compensation from the customer for the work we completed prior to termination.

All of our facilities are in material compliance with applicable COVID-related Government regulations and executive orders.

See Item 1A, "Risk Factors," for a discussion of risks related to our Government business.

Intellectual Property

We own or have other rights in various forms of intellectual property (i.e., patents, trademarks, service marks, copyrights, mask works, trade secrets and other items). As a major supplier of engineered products to industrial and commercial markets, we emphasize developing intellectual property and protecting our rights therein. However, the legal protection afforded by intellectual property rights is often uncertain and can involve complex legal and factual issues. Some intellectual property rights, such as patents, have a limited term, and there can be no assurance that third parties will not infringe or design around our intellectual property. Policing the unauthorized use of intellectual property is difficult, and infringement and misappropriation are persistent problems for many companies, particularly in some international markets, and in some cases, we may elect not to pursue an unauthorized user due to the high costs and uncertainties associated with litigation. Further, there can be no assurance that courts will ultimately hold issued patents or other intellectual property valid and enforceable. See Item 1A, "Risk Factors."

A number of products in the Aerospace & Defense segment are based on patented or otherwise proprietary technology that sets them apart from the competition, such as VACCO's proprietary quieting technology and Westland's signature reduction solutions. In addition, Globe has developed significant manufacturing and logistics capability useful for special hull treatments for submarines.

In the USG segment, our policy is to seek patent and/or other forms of intellectual property protection on new and improved products, components of products, and methods of operation for our businesses, as such developments are made. Doble has obtained and is pursuing additional patent protection on improvements to its line of diagnostic equipment and NERC CIP compliance tools and its newly-introduced Calisto R9 dissolved gas analyzer. Doble also holds an extensive library of apparatus performance information useful to entities that generate, distribute or consume electric energy, and it makes part of this library available to registered users via an Internet portal. Altanova has obtained and is pursuing additional patent protection on instruments and methods for detecting partial discharges in electrical apparatus. NRG has intellectual property related to certain LIDAR technology and applications, and has obtained and is pursuing additional patent protection on its line of bat deterrent systems, which are designed to significantly reduce bat mortality at windfarms and in other applications where bat conservation is a concern.

In the Test segment, we have sought patent protection for significant inventions. Examples of such inventions include novel designs for window and door assemblies used in shielded enclosures and anechoic chambers, improved acoustic techniques for sound isolation and a variety of unique antennas. In addition, the Test segment holds a number of patents, and has patents pending, on products used to perform wireless device testing.

We consider our patents and other intellectual property to be of significant value to each of our segments.

Backlog

Total Company backlog of firm orders at September 30, 2022 was \$695.0 million, representing an increase of \$103.0 million (17.4%) from the backlog of \$592.0 million at September 30, 2021. By segment, the backlog at September 30, 2022 and September 30, 2021, respectively, was \$408.3 million and \$367.2 million for A&D; \$128.1 million and \$91.6 million for USG; and \$158.6 million and \$133.2 million for Test. We estimate that as of September 30, 2022 domestic customers accounted for approximately 70% of our total firm orders and international customers accounted for approximately 30%. Of our total backlog at September 30, 2022, approximately 80% is expected to be completed in the fiscal year ending September 30, 2023.

Purchased Components and Raw Materials

Our products require a wide variety of components and materials. Although we have multiple sources of supply for most of our materials requirements, certain components and raw materials are supplied by sole source vendors, and our ability to perform certain contracts depends on their timely performance. In the past, these required raw materials and various purchased components generally have been available in sufficient quantities. However, we do have some risk of shortages of materials or components due to reliance on sole or limited sources of supply; and supplies of components and materials are periodically impacted by supply chain disruptions, as well as complications due to current or future trade policies. Where feasible, we engineer and qualify substitute products to avoid short-term supply issues; however, we are subject to the same supply chain risks as other electronics manufacturers. An unanticipated delay in delivery by our suppliers could result in the inability to deliver our products on-time and to meet the expectations of our customers. Additionally, we have experienced, and could continue to experience, an increase in the costs of doing business, including increasing raw material prices and transportation costs, which have and could continue to have an adverse impact on our business, results of operations, financial condition and cash flows. See also Item 1A, "Risk Factors."

Our A&D segment purchases supplies from a wide array of vendors. In most instances, multiple vendors of raw materials are screened during a qualification process to ensure that there will not be an interruption of supply should one of them underperform or discontinue operations. Nonetheless, in some situations, there is a risk of shortages due to reliance on a limited number of suppliers or because of price fluctuations due to the nature of the raw materials. For example, aerospace-grade titanium and gaseous helium, important raw materials for our A&D segment subsidiaries, may at times be in short supply.

Our USG segment manufactures electronic instrumentation through a network of regional contract manufacturers under long-term contracts. In general, USG purchases the same kinds of component parts as do other electronic products manufacturers, and these electronic components can be subject to supply chain constraints. USG purchases only a limited amount of raw materials, although some USG products require helium, which may at times be in short supply.

Our Test segment is a vertically integrated supplier of electro-magnetic (EM) shielding and RF absorbing products, producing most of its critical RF components itself. This segment purchases significant quantities of raw materials such as polyurethane foam, polystyrene beads, steel, aluminum, copper, nickel and wood. Accordingly, it is subject to price fluctuations in the worldwide raw materials markets. While ETS-Lindgren has long-term contracts with a number of its suppliers, performance of these contracts is vulnerable to the risks described in Item 1A.

Competition

Competition in our major markets is broadly based and global in scope. This competition can be particularly intense during periods of economic slowdown, and we have experienced this in some of our markets. Although we are a leading supplier in several of the markets we serve, we maintain a relatively small share of the business in many of our other markets. Individual competitors range in size from annual revenues of less than \$1 million to billion-dollar enterprises. Because of the specialized nature of our products, our competitive position with respect to our products cannot be precisely stated. In our major served markets, competition is driven primarily by quality, technology, price and delivery performance. See also Item 1A, “Risk Factors.”

Primary competitors of our A&D segment include Pall Corporation, Moog, Inc., Safran (Sofrance), CLARCOR Inc., TransDigm (PneuDrualics), Marotta Controls, and Parker Hannifin.

Significant competitors of our USG segment include OMICRON electronics Corp., Megger Group Limited, Vaisala, and Qualitrol Company LLC (a subsidiary of Fortive Corporation).

Our Test segment is a global leader in EM shielding. Significant competitors in this market include Rohde & Schwarz GMBH, Microwave Vision SA (MVG), TDK RF Solutions Inc., Albatross GmbH, IMEDCO AG, and Universal Shielding Corp.

Research and Development

Research and development and our technological expertise are important factors in our business. Our research and development programs are designed to develop technology for new products or to extend or upgrade the capability of existing products, and to enhance their commercial potential. We perform research and development at our own expense, and also engage in research and development funded by our customers. See Note 1 to the Consolidated Financial Statements for financial information about our research and development expenditures.

Environmental Matters and Government Regulation

We are involved in various stages of investigation and cleanup relating to environmental matters. It is difficult to estimate the potential costs of these matters and the possible impact of these costs on the Company at this time due in part to: the uncertainty regarding the extent of pollution; the complexity and changing nature of Government laws and regulations and their interpretations; the varying costs and effectiveness of alternative cleanup technologies and methods; the uncertain level of insurance or other types of cost recovery; the uncertain level of our responsibility for any contamination; the possibility of joint and several liability with other contributors under applicable law; and the ability of other contributors to make required contributions toward cleanup costs. Based on information currently available, we do not believe that the aggregate costs involved in the resolution of environmental matters or compliance with Governmental regulations will have a material adverse effect on our financial condition or results of operations.

Human Capital Management

As of September 30, 2022, we employed 2,922 persons, including 2,894 full time employees 18% of whom were located in 17 foreign countries.

We strive to be a responsible member of the communities in which we operate, and we are dedicated to preserving operational excellence and remaining an employer of choice. We provide and maintain a work environment that attracts, develops and retains top talent by offering our employees an engaging work experience that contributes to their career development. Through our charitable Foundation and wellness activities we provide opportunities for civic involvement that not only support our communities and provides our employees with meaningful experiences that promote collaborative and rewarding work environments. We strive to maintain a culture that enables all employees to be treated with dignity and respect while performing their jobs to the best of their abilities. We operate in a supportive culture that incorporates strong ethical behavior and reinforces our human rights commitment through annual training on ethics, human rights, anti-human trafficking and anti-harassment.

Our subsidiaries enjoy modest turnover at about half the national average for our industry. Fewer than 6% of our workforce are contingent workers. We invest in creating a diverse, inclusive and safe work environment which will inspire our employees to give their best efforts every day. In fact, nearly half of our employee base comes from diverse backgrounds.

We generally conduct formal compensation benchmarking reviews every 1-2 years to ensure wages are competitive in local markets and support our retention and recruiting efforts. Additionally, we invest time and resources in reviewing pay equity within our workforce. The majority of full-time domestic and international employees are eligible for bonus or commission plans, most of which are designed to incentivize and reward performance based on results such as EPS, EBIT, cash flow, quality and backlog reduction, or other measures.

We recognize that our success is based on the talents and dedication of those we employ, and we are invested in their success. Significant investments are made in the areas of talent development, technical skills and compliance training in areas such as supervisor training, employee coaching, ethics, safety, hazmat, ITAR, etc. For succession planning purposes, we focus on identifying high-potential future leaders and working with them on individual development plans and executive coaching.

Attracting and retaining a talented workforce is of utmost importance. Given the ever-changing talent market, we have looked to broaden the ways in which we can recognize and reward performance, including more frequent merit increases, market adjustments, spot bonuses, and other creative ways to recognize and reward employees. While utilizing these and other measures, at the end of our fiscal year the average tenure of our workforce was nine years. One third of employees have been with us for 10 or more years and more than 50% of employees have been with us for five or more years.

We are committed to the health and wellbeing of our employees and their families by encouraging participation in wellness programs. Generally, all our full-time employees, both domestic and international, are offered health and welfare benefits. We remain committed to our communities through financial support from our employees and the ESCO Foundation, and through personal participation of our employees with a variety of local organizations, such as food banks, blood drives, the Boys & Girls Club, and Habitat for Humanity. We believe strong human capital is a competitive differentiator, and we focus on ensuring we have the right domestic and international talent in place to drive our strategic initiatives not only today but well into the future.

Workforce Composition
(As of September 30, 2022)

<u>By Gender</u>	
Male	71%
Female	24%
Unknown*	5%

<u>By Race</u>	
Minorities	48%
White	40%
Unknown*	12%

*Some countries do not permit the collection or reporting of some or all of the above types of data.

<u>By Generation</u>	
Gen Z (1996-2015)	8%
Millennials (1977-1995)	39%
Gen X (1965-1976)	28%
Boomers (1946-1964)	25%
Silent (1945 & before)	<1%

Minorities are defined to include individuals of Native American or Alaskan Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, and Two or More Races.

The above is based on employees' self-identification or other information believed by the Company to be reliable.

Financing

For information about our credit facility, see Note 8 to the Consolidated Financial Statements, which is incorporated into this Item by reference.

Additional Information

The information set forth in Item 1A, “Risk Factors,” is incorporated in this Item by reference.

We make available free of charge on or through our website, *www.escotechnologies.com*, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as well as our recent Proxy Statements for meetings of our shareholders, as soon as reasonably practicable after we file or furnish this material to the Securities and Exchange Commission. Information contained on our website is not incorporated into this Report.

Information about our Executive Officers

The following sets forth certain information as of the date of this report with respect to the persons who are, or who have been selected to become, our executive officers. These officers are elected annually to terms which expire at the first meeting of the Board of Directors held after the Annual Meeting of Stockholders.

<u>Name</u>	<u>Age</u>	<u>Position(s) and Business Experience</u>
Victor L. Richey	65	Mr. Richey has been Chairman of the Board of Directors and Chief Executive Officer since April 2003, and President since October 2006. He also serves as Chairman of the Executive Committee of the Board of Directors. Mr. Richey will retire as Chief Executive Officer and President on December 31, 2022 but will continue as an employee and Chairman of the Board for a transition period.
Bryan H. Saylor	56	Mr. Saylor will become the Company's Chief Executive Officer and President on January 1, 2023. Mr. Saylor has led our Utility Solutions Group since 2016, where he played a key role in strategically building out the group, including leading our entry into the renewables business and overseeing six successful acquisitions that have more than doubled the size of the segment. From 1995 to 2016, he held senior positions with ETS-Lindgren.
Christopher L. Tucker	51	Mr. Tucker has been Senior Vice President and Chief Financial Officer since April 2021. Prior to joining ESCO, Mr. Tucker worked at Emerson Electric Co (NYSE:EMR) for 24 years, where he held a series of financial and administrative positions, most recently as Vice President and Chief Financial Officer of Emerson's Commercial and Residential Solutions business, consisting of 11 business units generating approximately \$6 billion in annual revenue.
David M. Schatz	59	Mr. Schatz has been Senior Vice President, General Counsel and Secretary since April 2021. He has worked at ESCO since 1998 in various positions with increasing responsibility, including serving as Vice President, IP Counsel and Assistant Secretary from 2015 until April 2021; he has extensive knowledge of ESCO's operations, technologies, intellectual property, regulatory matters, M&A and other complex legal matters.

There are no family relationships among any of our executive officers and directors.

Item 1A. Risk Factors

This Form 10-K, including Item 1, “Business,” Item 2, “Properties,” Item 3, “Legal Proceedings,” Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and Item 7A, “Quantitative and Qualitative Disclosures About Market Risk,” contains “forward-looking statements” within the meaning of the safe harbor provisions of the federal securities laws, as described under “Forward-Looking Statements” above.

In addition to the risks and uncertainties discussed in those Items and elsewhere in this Form 10-K, and risks and uncertainties that apply to businesses or public companies generally, the following important risk factors which are particularly applicable to our business could cause actual results and events to differ materially from those contained in any forward-looking statements, or could otherwise materially adversely affect our business, operating results or financial condition:

COVID-19 Related Risks

The continuation of the COVID-19 pandemic and the impacts of known or unknown COVID-19 variants may have a material adverse effect on our business which could continue for an unknown period of time.

The effects of the COVID-19 global pandemic continue to create or increase the economic, demand and operational uncertainties of our business. We have global operations, customers and suppliers, including in countries most impacted by COVID-19, and both the disease itself and the actions taken around the world to slow the spread of COVID-19 and its variants have impacted our customers and suppliers; and future developments could cause further disruptions to the Company due to the interconnected nature of our business relationships.

We have been and may continue to be subject to postponement or cancellation of certain contracts to which we are a party. Current restrictions and conditions have and may continue to prevent or delay us in accessing customer facilities to deliver products and provide services, and disrupt or delay our supply chain. Further, we have occasionally incurred short-term disruptions in some facility operations, and due to the nature of the COVID-19 pandemic there can be no assurance that we will not suffer facility closures or other adverse effects on our business operations in the future.

The facilities of our suppliers and customers have experienced, and may continue to experience, disruptions in manufacturing and supply arrangements due to the loss or disruption of critical manufacturing and supply elements, such as raw materials or other finished product components, transportation, workforce or other manufacturing and distribution capability. We may also experience failure of third parties on which we rely, including our suppliers, distributors and contractors, to meet their obligations to us, or significant restrictions in their ability to do so.

These facts and circumstances may have a material adverse effect on our business, results of operations, financial condition and cash flows. The extent to which the COVID-19 pandemic will impact our business, results of operations, financial condition and cash flows in the future, and the length of time these impacts may continue, will depend on future developments that are highly uncertain and cannot be predicted at this time, including new information that may emerge concerning the severity of COVID-19 and its variants, the longevity of COVID-19 and its variants, and the actions taken to contain their impacts.

Risks Related to our Governmental and Aerospace Business

Our sales of products to the Government depend upon continued Government funding.

Sales to the U.S. Government and its prime contractors and subcontractors represent a significant portion of our business. Over the past three fiscal years, from 26% to 28% of our revenues have been generated from sales to the U.S. Government or its contractors, primarily within our A&D segment. These sales are dependent on government funding of the underlying programs, which is generally subject to annual Congressional appropriations. There could be reductions or terminations of, or delays in, the government funding on programs which apply to us or our customers. These funding effects could adversely affect our sales and profit, and could bring about a restructuring of our operations, which could result in an adverse effect on our financial condition or results of operations. A significant portion of VACCO’s, Westland’s and Globe’s sales involve major U.S. Government programs such as NASA’s Space Launch System (SLS) and U.S. Navy submarines. A reduction or delay in Government spending on these programs could have a significant adverse impact on our financial results which could extend for more than a single year.

Our Government business increases the risk that we may not realize the full amount of our backlog.

As of September 30, 2022, our twelve-month backlog was approximately \$556.2 million, which represents confirmed orders we believe will be recognized as revenue within the next twelve months. There can be no assurance that our customers will purchase all the orders represented in our backlog, particularly as to contracts which are subject to the U.S. Government's and its subcontractors' ability to modify or terminate major programs or contracts, and if and to the extent that this occurs, our future revenues could be materially reduced.

The end of customer product life cycles could negatively affect our A&D segment's results.

Many of our A&D segment products are sold to be components in our customers' end-products. If a customer discontinues a certain end-product line, our ability to continue to sell those components will be reduced or eliminated. The result could be a significant decrease in our sales. For example, a substantial portion of PTI's revenue is generated from commercial aviation aftermarket sales. As certain aircraft are retired and replaced by newer aircraft, there could be a corresponding decrease in sales associated with our current products. Such a decrease could adversely affect our operating results.

Risks Related to our International Business

Negative worldwide economic conditions and related inflation, rising interest rates and a potential economic slowdown could result in a decrease in our sales and an increase in our operating costs, which could adversely affect our business and operating results.

If there is a worsening of global and U.S. economic and financial market conditions and additional tightening of global credit markets, many of our customers may further delay or reduce their purchases of our products. Uncertainties in the global economy may cause the utility industry and commercial market customers to experience increases in cost of capital, which could limit spending. To the extent this problem affects our customers, our sales and profits could be adversely affected. Likewise, if our suppliers face challenges in obtaining credit, they may have to increase their prices or become unable to continue to offer the products and services we use to manufacture our products, which could have an adverse effect on our business, results of operations and financial condition.

Increases in tariffs or other changes in trade policies could adversely affect our ability to compete.

In addition to the effects of increases in market prices, increases in domestic import tariffs could increase the prices to us of our foreign-sourced raw materials and product components and thereby require us to either increase our selling prices or accept reduced margins. In the case of ETS-Lindgren, for example, tariffs on imports of Chinese goods have raised the costs of components purchased by it either from its China facility or from other Chinese suppliers, and its margins in China have been impacted by the increased costs of its products made in the U.S. and sold through its Chinese business.

In addition, increases in foreign-country tariffs applicable to our exported products could increase the effective prices of our products to our customers in those countries unless we are able to offset the tariffs by reducing our selling prices. Any or all of these factors could decrease the demand for our products, reduce our profitability, and/or make our products less competitive than those of other manufacturers that are not subject to the same tariffs. For example, since 2019 increased tariffs imposed by China on U.S. origin goods have adversely affected sales of NRG's products in China by increasing their prices to Chinese customers.

In addition, trade restrictions against certain foreign-made products or entities may adversely affect our business and our ability to compete in certain markets. Our business may also be impacted by the ongoing trade tensions between the U.S. and China which are causing U.S. goods to be viewed in a less favorable light by Chinese customers.

Our international operations expose us to fluctuations in currency exchange rates that could adversely affect our results of operations and cash flows.

We have significant manufacturing and sales activities in foreign countries, and our domestic operations have sales to foreign customers. Our financial results may be affected by fluctuations in foreign currencies and by the translation of the financial statements of our foreign subsidiaries from local currencies into U.S. dollars, and we may not be able to adequately or successfully hedge against these risks. In addition, a rise in the dollar against foreign currencies could make our products more expensive for foreign customers and cause them to reduce the volume of their purchases.

Economic, political and other risks of our international operations, including terrorist activities or armed conflict, could adversely affect our business.

In 2022, approximately 30% of our net sales were to customers outside the United States. Adverse changes in the political situation in certain foreign countries in which we do business could cause a decline in revenues and adversely affect our financial condition. For example, our Test segment does significant business in Asia, and changes in the Asian political climate or political changes in specific Asian countries could negatively affect our business. Several of our subsidiaries are based in Europe and could be negatively impacted by the ongoing conflict between Russia and Ukraine. If this conflict were to spread beyond these two countries, we would expect an increasingly unfavorable impact on our global business environment.

Our international sales are also subject to other risks inherent in foreign commerce, including currency fluctuations and devaluations, differences in foreign laws, uncertainties as to enforcement of contract or intellectual property rights, and difficulties in negotiating and resolving disputes with our foreign customers.

Our governmental sales and our international and export operations are subject to special U.S. and foreign government laws and regulations which may impose significant compliance costs, create reputational and legal risk, and impair our ability to compete in international markets.

The international scope of our operations subjects us to a complex system of commercial and trade regulations around the world, and our foreign operations are governed by laws and business practices that often differ from those of the U.S. In addition, laws such as the U.S. Foreign Corrupt Practices Act and similar laws in other countries increase the need for us to manage the risks of improper conduct not only by our own employees but by distributors and contractors who may not be within our direct control. Many of our exports are of products which are subject to U.S. Government regulations and controls such as the U.S. International Traffic in Arms Regulations (ITAR), which impose certain restrictions on the U.S. export of defense articles and services, and these restrictions are subject to change from time to time, including changes in the countries into which our products may lawfully be sold.

If we were to fail to comply with these laws and regulations, we could be subject to significant fines, penalties and other sanctions including the inability to continue to export our products or to sell our products to the U.S. Government or to certain other customers. In addition, some of these regulations may be viewed as too restrictive by our international customers, who may elect to develop their own domestic products or procure products from other international suppliers which are not subject to comparable export restrictions; and the laws, regulations or policies of certain other countries may also favor their own domestic suppliers over foreign suppliers such as the Company.

Risks Related to our Manufacturing and Sales Operations and Technology

Disruptions of Our Information Technology Systems, or Information Security and/or Data Privacy Breaches, Could Adversely Affect Our Business.

We have many information technology systems that are important to the operation of our businesses, some of which are managed by third parties. These systems are used to obtain, process, transmit and store electronic information and to manage or support a variety of integral business processes and activities. Our primary and backup computer systems are vulnerable to damage, disruptions or shutdowns during the process of upgrading or replacing software, databases or components and from power outages, computer and telecommunication failures, security breaches, natural disasters and errors by employees. Any failure in the operation of our information technology systems could adversely affect our businesses or operating results. Although losses arising from some of these issues may be covered by information security insurance, we cannot guarantee that our coverage will be adequate for all costs or losses incurred.

Global information technology security threats and targeted computer crime are increasing in frequency and sophistication and pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data and communications. We attempt to mitigate these risks through numerous measures, including implementation of standard cybersecurity controls, employee training and testing, comprehensive monitoring of our networks and systems, and maintenance of backup and protective systems. Although we do not believe we have experienced a material information security breach in the last three years, and we have incurred no fines, settlement costs or other material expenses related to information security breaches, if we were to experience such a breach it could adversely affect our reputation and result in litigation, regulatory action, liability for fines, penalties and related expenses, and costs of implementing additional data protection procedures. In addition, even though we generally do not conduct business directly with retail or individual customers or consumers we must comply with increasingly complex and rigorous regulatory standards enacted to protect business and personal data in the U.S. and elsewhere. Compliance with data privacy laws and regulations increases operational complexity, and failure to comply with legal

or regulatory standards could subject us to fines and penalties, as well as legal and reputational risks, including proceedings against us by governmental entities or others. Although we maintain insurance coverage for data privacy risks, we cannot guarantee that our coverage will be adequate for all costs or losses incurred.

A significant part of our manufacturing operations depends on a small number of third-party suppliers.

A significant part of our manufacturing operations relies on a small number of third-party manufacturers to supply component parts or products. For example, Doble has arrangements with six manufacturers which produce and supply a substantial portion of its end-products, and one of these suppliers produces approximately 23% of Doble's products from a single location within the United States. As another example, PTI has a single supplier of critical electronic components for a significant aircraft production program, and if this supplier were to discontinue producing these components the need to secure another source could pose a risk to the production program. A significant disruption in the supply of those products or others provided by a small number of suppliers could negatively affect the timely delivery of products to customers as well as future sales, which could increase costs and reduce margins.

Certain of our other businesses are dependent upon sole source or a limited number of third-party manufacturers of parts and components. Many of these suppliers are small businesses. Since alternative supply sources are limited, there is an increased risk of adverse impacts on our production schedules and profits if our suppliers were to default in fulfilling their price, quality or delivery obligations. In addition, some of our customers or potential customers may prefer to purchase from a supplier which does not have such a limited number of sources of supply.

Increases in prices of raw material and components, and decreased availability of such items, could adversely affect our business.

The cost of raw materials and product components is a major element of the total cost of many of our products. For example, our Test segment's critical components rely on purchases of raw materials from third parties. Increases in the prices of raw materials (such as steel, copper, nickel, zinc, wood and petrochemical products) could have an adverse impact on our business by, among other things, increasing costs and reducing margins. Aerospace-grade titanium and gaseous helium, important raw materials for our A&D segment, may at times be in short supply; in addition, although we try to tie our supplier pricing to long-term contracts this is not always possible, and we are experiencing price inflation on a number of products. Further, some of Doble's items of equipment which are provided to its customers for their use are in the maturity of their life cycles, which creates the risk that replacement components may be unavailable or available only at increased costs. We have experienced COVID-related short term disruptions in the supply chain which have periodically resulted in extended lead times and cost increases, and the long term impacts of these disruptions are uncertain. See also "COVID-19 Related Risks" above.

In addition, our reliance on sole or limited sources of supply of raw materials and components in each of our segments could adversely affect our business, as described in the preceding Risk Factor. The potential physical impacts of climate change, such as increased frequency and severity of storms, floods and other climatic events, could disrupt our supply chain, and cause our suppliers to incur significant costs in preparing for or responding to these effects. These and other weather-created disruptions in supply, in addition to affecting costs, could impact our ability to procure an adequate supply of these raw materials and components, and delay or prevent deliveries of products to our customers. The entire electronics industry is currently disrupted due to limited sources of supply, and we are subject to the same supply chain risks as other manufacturers of products containing electronic components.

Our inability to timely develop new products could reduce our future sales.

Much of our business is dependent on the continuous development of new products and technologies to meet the changing needs of our markets on a cost-effective basis. Many of these markets are highly technical from an engineering standpoint, and the relevant technologies are subject to rapid change. If we fail to timely enhance existing products or develop new products as needed to meet market or competitive demands, we could lose sales opportunities, which would adversely affect our business. In addition, in some existing contracts with customers, we have made commitments to develop and deliver new products. If we fail to meet these commitments, the default could result in the imposition on us of contractual penalties including termination. Our inability to enhance existing products in a timely manner could make our products less competitive, while our inability to successfully develop new products may limit our growth opportunities. Development of new products and product enhancements may also require us to make greater investments in research and development than we now do, and the increased costs associated with new product development and product enhancements could adversely affect our operating results. In addition, our costs of new product development may not be recoverable if demand for our products is not as great as we anticipate it to be.

Product defects or customer claims could result in costly fixes, litigation and damages.

Our business exposes us to potential product liability risks that are inherent in the design, manufacture and sale of our products and the products of third-party vendors which we use or resell, many of which are mission-critical to our customers. If there are claims related to defective products (under warranty or otherwise), particularly in a product recall situation, we could be faced with significant expenses in replacing or repairing the product. For example, the A&D segment obtains raw materials, machined parts and other product components from suppliers who provide certifications of quality which we rely on. Should these product components be defective and pass undetected into finished products, or should a finished product contain a defect, we could incur significant costs for repairs, re-work and/or removal and replacement of the defective product. In addition, if a dispute over product claims cannot be settled, arbitration or litigation may result, requiring us to incur attorneys' fees and exposing us to the potential of damage awards against us.

A major portion of our Test segment's business involves working in conjunction with general contractors to produce complex building components constructed on-site, such as electronic test chambers, secure communication rooms and MRI facilities. If there are performance problems caused by either us or a contractor, they could result in cost overruns and may lead to a dispute as to which party is responsible. The resolution of such disputes can involve arbitration or litigation, and can cause us to incur significant expense including attorneys' fees. In addition, these disputes could result in a reduction in revenue, a loss on a particular project, or even a significant damages award against us.

Despite our efforts, we may be unable to adequately protect our intellectual property.

Much of our business success depends on our ability to protect and freely utilize our various intellectual properties, including both patents and trade secrets. Despite our efforts to protect our intellectual property, unauthorized parties or competitors may copy or otherwise obtain and use our products and technology, particularly in foreign countries such as China where the laws may not protect our proprietary rights as fully as in the United States. Our current and future actions to enforce our proprietary rights may ultimately not be successful; or in some cases we may not elect to pursue an unauthorized user due to the high costs and uncertainties associated with litigation. We may also face exposure to claims by others challenging our intellectual property rights. Any or all of these actions may divert our resources and cause us to incur substantial costs.

Environmental laws and regulations or environmental contamination could increase our expenses and adversely affect our profitability.

Our operations and properties are subject to U.S. and foreign environmental laws and regulations governing, among other things, the generation, storage, emission, discharge, transportation, treatment and disposal of hazardous materials and the clean-up of contaminated properties. In addition, governments around the world are increasingly focused on enacting laws and regulations regarding climate change and regulation of greenhouse gases. These regulations, and changes to them, could increase our cost of compliance, and our failure to comply could result in the imposition of significant fines, suspension of production, alteration of product processes, cessation of operations or other actions which could materially and adversely affect our business, financial condition and results of operations.

We are currently involved as a responsible party in several ongoing investigations and remediations of contaminated third-party owned properties. In addition, environmental contamination may be discovered in the future on properties which we formerly owned or operated and for which we could be legally responsible. Future costs associated with these situations, including ones which may be currently unknown to us, are difficult to quantify but could have a significant effect on our financial condition. See Item 1, "Business – Environmental Matters" for a discussion of these factors.

Risks Related to Our Business Strategy and Corporate Structure

Changes in testing standards could adversely impact our Test and USG segments' sales.

A significant portion of the business of our USG and Test segments involves sales to technology customers who need to have a third party verify that their products meet specific international and domestic test standards. If regulatory agencies were to eliminate or reduce certain domestic or international test standards, or if demand for product testing from these customers were to decrease for some other reason, our sales could be adversely affected. For example, if a regulatory authority were to relax the test standards for certain electronic devices because they were determined not to interfere with the broadcast spectrum, or if new wireless communication technologies were developed that required less testing or different types of testing, our sales of certain testing products could be significantly reduced.

We may not be able to identify suitable acquisition candidates or complete acquisitions successfully, which may inhibit our rate of growth.

As part of our growth strategy, we plan to continue to pursue acquisitions of other companies, assets and product lines that either complement or expand our existing business. However, we may be unable to implement this strategy if we are unable to identify suitable acquisition candidates or consummate future acquisitions at acceptable prices and terms. We expect to face competition for acquisition candidates which may limit the number of acquisition opportunities available to us and may result in higher acquisition prices. As a result, we may be limited in the number of acquisitions which we are able to complete and we may face difficulties in achieving the profitability or cash flows needed to justify our investment in them.

Our acquisitions of other companies carry risk.

Acquisitions of other companies involve numerous risks, including difficulties in the integration of the operations, technologies and products of the acquired companies, the potential exposure to unanticipated and undisclosed liabilities, the potential that expected benefits or synergies are not realized and that operating costs increase, the potential loss of key personnel, suppliers or customers of acquired businesses and the diversion of Management's time and attention from other business concerns. Although we attempt to identify and evaluate the risks inherent in any acquisition, we may not properly ascertain or mitigate all such risks, and our failure to do so could have a material adverse effect on our business.

We may incur significant costs, experience short-term inefficiencies, or be unable to realize expected long-term savings from facility consolidations and other business reorganizations.

We periodically assess the cost and operational structure of our facilities in order to manufacture and sell our products in the most efficient manner, and based on these assessments, we may from time to time reorganize, relocate or consolidate certain of our facilities. These actions may require us to incur significant costs and may result in short term business inefficiencies as we consolidate and close facilities and transition our employees; and in addition, we may not achieve the expected long-term benefits. Any or all of these factors could result in an adverse impact on our operating results, cash flows and financial condition.

Our inability to hire or retain qualified key employees could affect our performance and revenues.

There is a risk of our losing key employees having engineering and technical expertise. For example, our USG segment relies heavily on engineers with significant experience and reputation in the utility industry to furnish expert consulting services and support to customers, and our other segments similarly rely on qualified and experienced employees to carry on their businesses. Despite our active recruitment efforts, there remains a shortage of these qualified engineers and other employees because of hiring competition from other companies in the industry and a generally tight labor market, possibly exacerbated by COVID-related retirements or career changes. Losing current employees or qualified candidates to other employers or for other reasons could reduce our ability to provide services and negatively affect our revenues.

Our decentralized organizational structure presents certain risks.

We are a relatively decentralized company in comparison with some of our peers. This decentralization necessarily places significant control and decision-making powers in the hands of local management, which present various risks, including the risk that we may be slower or less able to identify or react to problems affecting a key business than we would in a more centralized management environment. We may also be slower to detect or react to compliance related problems (such as an employee undertaking activities prohibited by applicable law or by our internal policies), and Company-wide business initiatives may be more challenging and costly to implement, and the risks of noncompliance or failures higher, than they would be under a more centralized management structure. Depending on the nature of the problem or initiative in question, such noncompliance or failure could have a material adverse effect on our business, financial condition or result of operations.

Provisions in our articles of incorporation, bylaws and Missouri law could make it more difficult for a third party to acquire us and could discourage acquisition bids or a change of control, and could adversely affect the market price of our common stock.

Our articles of incorporation and bylaws contain certain provisions which could discourage potential hostile takeover attempts, including: a limitation on the shareholders' ability to call special meetings of shareholders; advance notice requirements to nominate candidates for election as directors or to propose matters for action at a meeting of

shareholders; a classified board of directors, which means that approximately one-third of our directors are elected each year; and the authority of our board of directors to issue, without shareholder approval, preferred stock with such terms as the board may determine. In addition, the laws of Missouri, in which we are incorporated, require a two-thirds vote of outstanding shares to approve mergers or certain other major corporate transactions, rather than a simple majority as in some other states such as Delaware. These provisions could impede a merger or other change of control not approved by our board of directors, which could discourage takeover attempts and in some circumstances reduce the market price of our common stock.

Item 1B. Unresolved Staff Comments

None

Item 2. Properties

We believe our buildings, machinery and equipment have been generally well maintained, are in good operating condition and are adequate for our current production requirements and other needs.

At September 30, 2022, our physical properties, including those described in the table below, comprised approximately 1,618,000 square feet of floor space, of which approximately 757,500 square feet were owned and approximately 860,500 square feet were leased. The table below includes our principal physical properties. We do not believe any of the omitted properties, consisting primarily of office and/or warehouse space, are individually or collectively material to our operations or business. See also Note 14 to the Consolidated Financial Statements.

<u>Location</u>	<u>Approx. Sq. Ft.</u>	<u>Owned / Leased (with Expiration Date)</u>	<u>Principal Use(s) (M=Manufacturing, E=Engineering, O=Office, W=Warehouse)</u>	<u>Operating Segment</u>
Modesto, CA	181,500	Leased (9/30/2033)	M, E, O, W	A&D
Denton, TX	145,000	Leased (9/30/2029, plus options)	M, E, O, W	A&D
Cedar Park, TX	130,000	Owned	M, E, O, W	Test
Oxnard, CA	127,400	Owned	M, E, O, W	A&D
South El Monte, CA	100,100	Owned	M, E, O, W	A&D
Durant, OK	100,000	Owned	M, O, W	Test
Valencia, CA	79,300	Owned	M, E, O	A&D
Marlborough, MA	79,100	Leased (2/28/2037)	M, E, O, W	USG
Hinesburg, VT	77,000	Owned	M, E, O, W	USG
Stoughton, MA	71,400	Leased (1/31/2029)	M, E, O, W	A&D
Accident, MD	66,800	Owned	M, E, O, W	USG
South El Monte, CA	63,300	Leased (6/30/2024)	M, O, W	A&D
Brockton, MA	47,300	Leased (7/31/2023)	W	A&D
Eura, Finland	41,500	Owned	M, E, O, W	Test
Montreal, Québec	38,400	Leased (8/31/2041)	M, E, O, W	USG
Tianjin, China	38,100	Leased (11/19/2027)	M, E, O	Test
Minocqua, WI	35,400	Owned	M, O, W	Test
Bologna, Italy	28,200	Leased (8/13/2028)	M, E, O, W	USG
Ontario, CA	26,900	Leased (8/31/2025)	M, E, O, W	USG
Chatsworth, CA	24,800	Leased (12/31/2023)	M, E, O, W	A&D
St. Louis, MO	21,500	Leased (8/31/2025)	ESCO Corporate Office	Corporate
Taino, Italy	18,000	Leased (various term ends)	M, E, O, W	USG
Zola Predosa, Italy	12,900	Leased (1/31/2029)	M, E, O, W	USG
Morrisville, NC	11,600	Leased (1/31/2027), plus options	O	USG
Wood Dale, IL	10,700	Leased (6/30/2024)	E, O	Test

Item 3. Legal Proceedings

As a normal incident of the businesses in which we are engaged, various claims, charges and litigation are asserted or commenced from time to time against us. With respect to claims and litigation currently asserted or commenced against us, it is the opinion of our Management that final judgments, if any, which might be rendered against us are adequately reserved for, are covered by insurance, or are not likely to have a material adverse effect on our financial condition or results of operations. Nevertheless, given the uncertainties of litigation, it is possible that certain types of claims, charges and litigation could have a material adverse impact on us; see Item 1A, “Risk Factors.”

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Holdings of Record. As of November 7, 2022, there were approximately 1,808 holders of record of our common stock.

Price Range of Common Stock and Dividends. Our common stock is listed on the New York Stock Exchange; its trading symbol is "ESE".

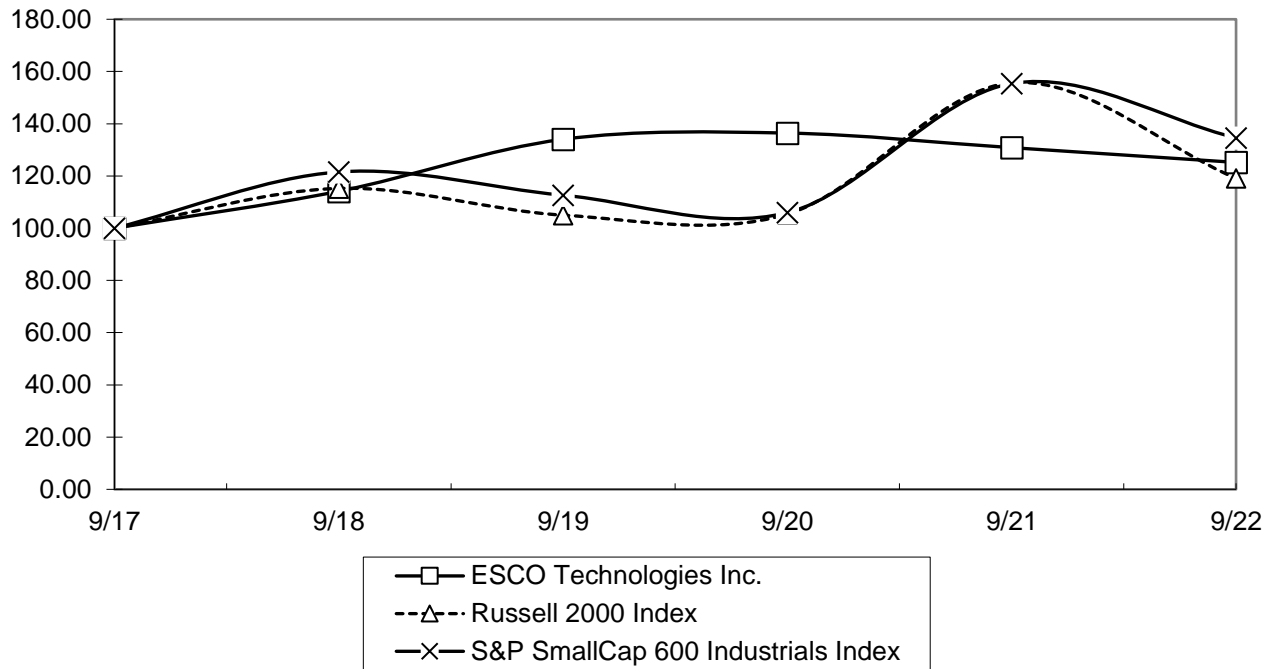
Company Purchases of Equity Securities. For information about our common stock repurchase programs, please refer to Note 9 to the Consolidated Financial Statements. We did not repurchase any shares of our common stock during the fourth quarter of fiscal 2022.

Securities Authorized for Issuance Under Equity Compensation Plans. For information about securities authorized for issuance under our equity compensation plans, please refer to Item 12 of this Form 10-K and to Note 10 to the Consolidated Financial Statements.

Performance Graph. The graph and table on the following page present a comparison of the cumulative total shareholder return on our common stock as measured against the cumulative total returns of the Russell 2000 index, which is a broad equity market index, and the S&P SmallCap 600 Industrials index, which is a published industry index designed to measure the performance of small-cap companies that are classified as members of the GICS Industrials sector. The Company is a component of both the Russell 2000 index and the S&P SmallCap 600 Industrials index.

The measurement period begins on September 30, 2017 and measures at each September 30 thereafter. These figures assume that all dividends, if any, paid over the measurement period were reinvested, and that the starting values of each index and the investments in our common stock were \$100 at the close of trading on September 30, 2017.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN
Among ESCO Technologies Inc., the Russell 2000 Index,
and the S&P SmallCap 600 Industrials Index



	<u>9/30/17</u>	<u>9/30/18</u>	<u>9/30/19</u>	<u>9/30/20</u>	<u>9/30/21</u>	<u>9/30/22</u>
ESCO Technologies Inc.	\$100.00	\$114.13	\$134.04	\$136.42	\$130.83	\$125.19
Russell 2000 Index	100.00	115.24	104.99	105.40	155.66	119.08
S&P Small Cap 600 Industrials Index	100.00	121.53	112.63	105.97	155.41	134.57

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Item 6. [Reserved]

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

The following discussion should be read in conjunction with the Consolidated Financial Statements and Notes thereto and refers to our results from continuing operations except where noted.

Selected financial information for each of our business segments is provided in the discussion below and in Note 12 to the Company’s Consolidated Financial Statements.

This section includes comparisons of certain 2022 financial information to the same information for 2021. Year-to-year comparisons of the 2021 financial information to the same information for 2020 are contained in Item 7 of our Form 10-K for 2021 filed with the Securities and Exchange Commission on November 29, 2021 and available through the SEC’s website at <https://www.sec.gov/edgar/searchedgar/companysearch.html>.

Introduction

We classify our business operations into three segments for financial reporting purposes, although for reporting certain financial information we treat Corporate activities as a separate segment. Our three operating segments during 2022 were Aerospace & Defense (A&D), Utility Solutions Group (USG), and RF Shielding and Test (Test). Our operating segments are comprised of the following primary operating subsidiaries:

- **A&D:** PTI Technologies Inc. (PTI); VACCO Industries (VACCO); Crissair, Inc. (Crissair); Westland Technologies, Inc. (Westland); Mayday Manufacturing Co. (Mayday); Globe Composite Solutions, LLC (Globe); and Networks Electronic Co. (NEco).

- USG: Doble Engineering Company, I.S.A. – Altanova Group S.r.l. and affiliates (Altanova) and Morgan Schaffer Ltd. (collectively, Doble); and NRG Systems, Inc. (NRG).
- Test: ETS-Lindgren Inc. (ETS-Lindgren).

A&D. PTI, VACCO and Crissair primarily design and manufacture specialty filtration products, including hydraulic filter elements and fluid control devices used in commercial aerospace applications, unique filter mechanisms used in micro-propulsion devices for satellites and custom designed filters for manned aircraft and submarines. Westland and Globe design, develop and manufacture elastomeric-based signature reduction solutions for U.S. naval vessels. Mayday designs and manufactures mission-critical bushings, pins, sleeves and precision-tolerance machined components for landing gear, rotor heads, engine mounts, flight controls, and actuation systems for the aerospace and defense industries.

USG. Doble develops, manufactures and delivers diagnostic testing solutions that enable electric power grid operators to assess the integrity of high-voltage power delivery equipment. NRG designs and manufactures decision support tools for the renewable energy industry, primarily wind and solar.

Test. ETS-Lindgren is an industry leader in providing its customers with the ability to identify, measure and contain magnetic, electromagnetic and acoustic energy.

We continue to operate with meaningful growth prospects in our primary served markets and with considerable financial flexibility. We continue to focus on new products that incorporate proprietary design and process technologies. Our Management is committed to delivering shareholder value through organic growth, ongoing performance improvement initiatives, and acquisitions.

In December 2019, we sold the businesses comprising our former Technical Packaging segment. We received net proceeds from the sale of approximately \$184 million and recorded \$76.5 million of after-tax net earnings on the sale in 2020. The Technical Packaging segment is reflected as discontinued operations in the Consolidated Financial Statements and related notes for all periods presented, in accordance with accounting principles generally accepted in the United States of America (GAAP). See Note 3 to the Consolidated Financial Statements for further discussion.

Highlights of 2022

- Sales, net earnings and diluted earnings per share in 2022 were \$857.5 million, \$82.3 million and \$3.16 per share, respectively, compared to sales, net earnings and diluted earnings per share in 2021 of \$715.4 million, \$63.5 million and \$2.42 per share, respectively.
- Diluted EPS – GAAP for 2022 was \$3.16, compared to Diluted EPS – GAAP for 2021 of \$2.42.
- Diluted EPS – As Adjusted for 2022 was \$3.21 excluding \$1.3 million of pretax charges (or \$0.05 per shares after tax), consisting of Altanova and NEco purchase accounting adjustments, severance charges primarily at VACCO and NRG, and acquisition and management transition costs at Corporate. Diluted EPS – As Adjusted for 2021 was \$2.59 excluding \$6.0 million of pretax charges (or \$0.17 per share after tax) consisting of one-time compensation and acquisition related costs at Corporate; restructuring costs within the USG segment, primarily facility consolidation charges; purchase accounting adjustments related to the Phenix and Altanova acquisitions, primarily inventory step-up charges; partially offset by the final settlement from the sale of the Doble Watertown facility. See “*Non-GAAP Financial Measures*” below.

(Dollars in millions)	Fiscal year ended	
	2022	2021
Diluted EPS – GAAP	\$ 3.16	2.42
One time compensation & acquisition related costs	0.02	0.12
Restructuring adjustments	0.01	0.08
Purchase accounting adjustments	0.02	0.03
Gain on building sale	–	(0.06)
Diluted EPS – As Adjusted	\$ 3.21	2.59

- Net cash provided by operating activities was \$135.3 million in 2022 compared to \$123.1 million in 2021.
- At September 30, 2022, cash on hand was \$97.7 million and outstanding debt was \$153.0 million, for a net debt position (total debt less cash on hand) of approximately \$55.3 million.

- Entered orders for 2022 were \$960.5 million resulting in a book-to-bill ratio of 1.12x. Backlog at September 30, 2022 was \$695.0 million compared to \$592.0 million at September 30, 2021.
- The Company declared dividends of \$0.32 per share during 2022, totaling \$8.3 million in dividend payments.

Results of Operations

Net Sales

(Dollars in millions)	Fiscal year ended		Change
	2022	2021	2022 vs. 2021
A&D	\$ 351.4	314.8	11.6 %
USG	278.4	202.9	37.2 %
Test	227.7	197.7	15.2 %
Total	\$ 857.5	715.4	19.9 %

Net sales increased \$142.1 million, or 19.9%, to \$857.5 million in 2022 from \$715.4 million in 2021. The increase in net sales in 2022 as compared to 2021 was mainly due to a \$75.5 million increase in the USG segment, a \$36.6 million increase in the A&D segment, and a \$30.0 million increase in the Test segment. Organic sales increased \$90 million and recent acquisitions added approximately \$52 million of revenue growth in 2022 as compared to 2021.

A&D.

The \$36.6 million, or 11.6%, increase in net sales in 2022 as compared to 2021 was mainly due to a \$16.4 million increase in net sales at PTI (including \$5.2 million from NEco), a \$14.1 million increase in net sales at Mayday, both primarily due to an increase in commercial aerospace sales driven by the rebound from the COVID-19 pandemic; a \$3.0 million increase in net sales at Westland driven by timing of navy defense projects, a \$1.5 million increase in net sales at VACCO, a \$0.9 million increase in net sales at Crissair and a \$0.7 million increase in net sales at Globe.

USG.

The \$75.5 million, or 37.2%, increase in net sales in 2022 as compared to 2021 was mainly due to a \$46.9 million increase in net sales from the 2021 acquisitions of Altanova and Phenix, a \$20 million increase in core Doble products and services; and a \$8.2 million increase in net sales at NRG driven by renewable energy products.

Test.

The \$30.0 million, or 15.2%, increase in net sales in 2022 as compared to 2021 was mainly due to a \$22.3 million increase in net sales from the Company's U.S. operations, \$11.5 million increase in net sales from the Company's Asian operations both driven by increased medical and industrial shielding and power filter demand, partially offset by a \$3.8 million decrease in net sales from the Company's European operations, primarily driven by the timing of test and measurement chamber projects.

Orders and Backlog

New orders received were \$960.5 million in 2022 and \$796.3 million in 2021. Order backlog was \$695.0 million at September 30, 2022, compared to order backlog of \$592.0 million at September 30, 2021. Orders are entered into backlog as firm purchase order commitments are received.

By operating segment, 2022 orders were \$392.5 million related to A&D products, \$314.9 million related to USG products, and \$253.1 million related to Test products; and 2021 orders were \$337.4 million related to A&D products, \$243.9 million related to USG products (including \$29 million of acquired backlog), and \$215.0 million related to Test products.

Selling, General and Administrative Expenses

Selling, general and administrative (SG&A) expenses were \$195.1 million, or 22.7% of net sales, in 2022, and \$167.5 million, or 23.4% of net sales, in 2021. The increase in SG&A expenses in 2022 as compared to 2021 was mainly due to higher expenses at Doble as a result of the SG&A expenses from the Altanova and Phenix acquisitions and the return of discretionary spending to more normal levels (travel, events, etc.) as COVID-19 pandemic related restrictions eased.

Amortization of Intangible Assets

Amortization of intangible assets was \$25.9 million in 2022 and \$20.8 million in 2021, including \$19.3 million and \$14.3 million of amortization of acquired intangible assets in 2022 and 2021, respectively, related to our acquisitions. The amortization of acquired intangible assets related to acquisitions is included in the Corporate segment's results. The remaining amortization expenses relate to other identifiable intangible assets (primarily software, patents and licenses), which are included in the respective segment's operating results. The increase in amortization expense in 2022 as compared to 2021 was mainly due to the Company's recent acquisitions of Phenix, Altanova and NEco.

Other Income or Expenses, Net

Other income, net, was \$0.3 million in 2022, compared to other income, net, of \$0.9 million in 2021. There were no individually significant items in other income, net in 2022. The principal components of other income, net, in 2021 included a gain of approximately \$2 million for the final settlement on the sale of the Doble Watertown, MA property, partially offset by facility consolidation charges within the USG segment (Doble Manta, Morgan Schaffer and Altanova facilities).

Non-GAAP Financial Measures

The information reported herein includes the financial measures Diluted EPS As Adjusted, which we define as Diluted EPS excluding the per-share impact of discrete compensation and acquisition related costs, severance charges primarily within the A&D segment, and purchase accounting charges related to the Company's recent acquisitions (Altanova and NEco) in 2022; the per-share net impact of discrete compensation and acquisition related costs, facility consolidation charges within the USG segment, and purchase accounting charges related to the Company's recent acquisitions in 2021, partially offset by a gain on the final installment of the Doble Watertown, MA property sale; and pension plan termination charge and restructuring charges related to our facility consolidation restructuring plans in 2020; EBIT, which we define as earnings before interest and taxes; and EBIT margin, which we define as EBIT expressed as a percentage of net sales. Diluted EPS – Continuing Operations As Adjusted, EBIT on a consolidated basis, and EBIT margin on a consolidated basis are not recognized in accordance with U.S. generally accepted accounting principles (GAAP). However, we believe that EBIT and EBIT margin provide investors and Management with valuable information for assessing our operating results. Management evaluates the performance of our operating segments based on EBIT and believes that EBIT is useful to investors to demonstrate the operational profitability of our business segments by excluding interest and taxes, which are generally accounted for across the entire company on a consolidated basis. EBIT is also one of the measures Management uses to determine resource allocations and incentive compensation. We believe that the presentation of EBIT, EBIT margin and Diluted EPS – Continuing Operations As Adjusted provides important supplemental information to investors by facilitating comparisons with other companies, many of which use similar non-GAAP financial measures to supplement their GAAP results. The use of non-GAAP financial measures is not intended to replace any measures of performance determined in accordance with GAAP.

EBIT

The reconciliation of EBIT to a GAAP financial measure is as follows:

(Dollars in millions)	<u>2022</u>	<u>2021</u>
EBIT	\$ 111.3	82.9
Less: Interest expense, net	(4.9)	(2.2)
Less: Income tax expense	(24.1)	(17.2)
Net earnings	<u>\$ 82.3</u>	<u>63.5</u>

EBIT by business segment is as follows:

(Dollars in millions)	Fiscal year ended		Change
	2022	2021	2022 vs. 2021
A&D	\$ 68.4	56.5	21.1 %
% of net sales	19.5%	17.9%	
USG	57.6	40.9	40.8 %
% of net sales	20.7%	20.2%	
Test	32.6	27.6	18.1 %
% of net sales	14.3%	14.0%	
Corporate	(47.3)	(42.1)	(12.4) %
Total	\$ 111.3	82.9	34.3 %
% of net sales	13.0%	11.6%	

A&D

The \$11.9 million, or 21.1%, increase in EBIT in 2022 as compared to 2021 was primarily due to higher sales volumes, favorable product mix and price increases at Mayday, Westland, PTI and Globe partially offset by a decrease in EBIT at Crissair and VACCO due to product mix and inflationary pressures. EBIT in 2022 was negatively impacted by a \$0.3 million inventory step-up charge related to the NEco acquisition and \$0.4 million of severance charges primarily at VACCO.

USG

The \$16.7 million, or 40.8%, increase in EBIT in 2022 as compared to 2021 was mainly due to higher sales volumes at Doble and NRG with a favorable product mix and price increases, partially offset by inflationary pressures and increased travel and event costs. EBIT in 2022 was negatively impacted by approximately \$0.5 million of inventory step-up charges related to the Altanova acquisition.

Test

The \$5.0 million, or 18.1%, increase in EBIT in 2022 as compared to 2021 was primarily due to leverage on higher sales volumes and price increases mainly from the segment's Asian and U.S. operations partially offset by material cost and wage inflation.

Corporate

Corporate operating charges included in 2022 consolidated EBIT increased to \$47.3 million as compared to \$42.1 million in 2021 mainly due to an increase in amortization expense of acquired intangible assets related to the Company's recent acquisitions of Phenix, Altanova and NEco.

The "Reconciliation to Consolidated Totals (Corporate)" in Note 12 to the Consolidated Financial Statements represents Corporate office operating charges.

Interest Expense, Net

Interest expense, net was \$4.9 million and \$2.3 million in 2022 and 2021, respectively. The increase in interest expense in 2022 was mainly due to higher average outstanding borrowings and higher average interest rates. Average outstanding borrowings were \$190 million in 2022 compared to \$71 million in 2021. The weighted average interest rates were 2.11% in 2022 compared to 1.20% in 2021.

Income Tax Expense

The effective tax rates from continuing operations for 2022, 2021 and 2020 were 22.7%, 21.3% and 37.1%, respectively. The increase in the 2022 effective tax rate as compared to 2021 was due an increase in state income tax expense and a reduction in research credit benefits, increasing the rate by 1.0% and 0.6%, respectively.

No provision has been made in 2022 for foreign withholding of any applicable U.S. income taxes on the undistributed earnings of non-U.S. subsidiaries where these earnings are considered indefinitely invested or otherwise retained for continuing international operations. Determination of the amount of taxes that might be paid on these undistributed earnings if eventually remitted is not practicable.

Acquisitions and Divestiture

Information regarding our acquisitions and divestiture during 2022, 2021 and 2020 is set forth in Notes 2 and 3 to the Consolidated Financial Statements, which Notes are incorporated by reference herein.

All of our acquisitions have been accounted for using the purchase method of accounting, and accordingly, the respective purchase prices were allocated to the assets (including intangible assets) acquired and liabilities assumed based on estimated fair values at the date of acquisition. The financial results from these acquisitions have been included in our financial statements from the date of acquisition.

Capital Resources and Liquidity

Our overall financial position and liquidity are strong. Working capital (current assets less current liabilities) increased to \$254.5 million at September 30, 2022 from \$191.2 million at September 30, 2021. Accounts receivable increased by \$18.3 million during 2022 mainly due to a \$10.4 million increase within the USG segment, a \$4.7 million increase within the Test segment and a \$3.2 million increase within the A&D segment, driven by timing and higher sales volumes in the current year. Inventories increased by \$15.3 million during 2022 mainly due to a \$7.9 million increase within the Test segment and an \$8.7 million increase within the USG segment resulting primarily from the timing of receipt of raw materials to meet anticipated demand and an increase in work in process inventories due to timing of manufacturing existing orders. Accounts payable increased by \$22.1 million during 2022 mainly due to a \$9.6 million increase within the Test segment, a \$7.1 million increase within the A&D segment and a \$4.2 million increase within the USG segment, due to the timing of payments.

Net cash provided by operating activities was \$135.3 million in 2022 and \$123.1 million in 2021.

Net cash used in investing activities was \$55.9 million in 2022 and \$202.4 million in 2021. The decrease in net cash used in investing activities in 2022 as compared to 2021 was mainly due to a decrease in amounts spent on acquisitions in 2022. Capital expenditures were \$32.1 million in 2022 and \$26.7 million in 2021. The increase in 2022 as compared to 2021 was mainly due to the purchase of the NRG building of approximately \$10 million in the first quarter of 2022. In addition, the Company incurred expenditures for capitalized software of \$12.9 million in 2022 and \$8.8 million in 2021.

There were no commitments outstanding that were considered material for capital expenditures at September 30, 2022.

Net cash used by financing activities was \$32 million in 2022 compared to net cash provided by financing activities of \$81.5 million in 2021, primarily due to lower borrowings in the current year and repurchases of common stock into treasury.

Bank Credit Facility

A description of our credit facility (the “Credit Facility”) is set forth in Note 8 to the Consolidated Financial Statements, which Note is incorporated by reference herein.

Cash flow from operations and borrowings under the Credit Facility is expected to provide adequate resources to meet our capital requirements and operational needs both for the next 12 months and for the foreseeable future.

Dividends

During both 2022 and 2021 we paid a regular quarterly cash dividend at an annual rate of \$0.32 per share, totaling \$8.3 million in both 2022 and 2021.

Off-Balance-Sheet Arrangements

We had no off-balance-sheet arrangements outstanding at September 30, 2022.

Share Repurchases

During 2022, the Company repurchased approximately 257,500 shares for approximately \$20.0 million.

Critical Accounting Policies

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires Management to make estimates and assumptions in certain circumstances that affect amounts reported in the Consolidated Financial Statements. In preparing these financial statements, Management has made its best estimates and judgments of certain amounts included in the Consolidated Financial Statements, giving due consideration to

materiality. We do not believe there is a great likelihood that materially different amounts would be reported under different conditions or using different assumptions related to the accounting policies described below. However, application of these accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. Our senior Management discusses the critical accounting policies described below with the Audit and Finance Committee of our Board of Directors on a periodic basis.

The following discussion of critical accounting policies is intended to bring to the attention of readers those accounting policies which Management believes are critical to the Consolidated Financial Statements and other financial disclosure. It is not intended to be a comprehensive list of all significant accounting policies that are more fully described in Note 1 to the Consolidated Financial Statements.

Revenue Recognition

We account for revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers. The unit of account in ASC Topic 606 is a performance obligation. The transaction price for our contracts represents our best estimate of the consideration we will receive and includes assumptions regarding variable consideration, as applicable, which are based on historical, current and forecasted information. The transaction price is allocated to each distinct performance obligation within the contract and recognized as revenue when, or as, the performance obligation is satisfied. Certain of our long-term contracts contain incentive fees that can increase the transaction price. These variable amounts generally are awarded upon achievement of certain performance metrics, program milestones or cost targets and can be based upon customer discretion. We include estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur. The estimated amounts are based on an assessment of our anticipated performance and all other information that is reasonably available to us.

Approximately 60% of the A&D segment's revenue (25% of consolidated revenue) is recognized over time as the products do not have an alternative use and either we have an enforceable right to payment for costs incurred plus a reasonable margin or the inventory is owned by the customer. Selecting the method to measure progress towards completion for our contracts requires judgment and is based on the nature of the products or services to be provided.

The A&D segment generally uses the cost-to-cost method to measure progress on our contracts, as the rate at which costs are incurred to fulfill a contract best depicts the transfer of control to the customer. Under this method, we measure the extent of progress towards completion based on the ratio of costs incurred to date to the estimated costs at completion of the performance obligation, and we record revenue proportionally as costs are incurred based on an estimated profit margin.

The Test segment generally uses the milestone output method to measure progress on our contracts because it best depicts the transfer of control to the customer that occurs as we incur costs on our contracts. Under this method, we estimate profit as the difference between total revenue and total estimated costs at completion of a contract and recognize these revenues and costs based on milestones achieved.

Total contract cost estimates are based on current contract specifications and expected engineering requirements and require us to make estimates on expected profit. The estimates on profit are based on judgments we make to project the outcome of future events, and can often span more than one year and include labor productivity and availability, the complexity of the work to be performed, change orders issued by our customers, and other specialized engineering and production related activities. Our cost estimation process is based on historical results of contracts and historical actuals to original estimates, and the application of professional knowledge and experience of engineers and program managers along with finance professionals to these historical results. We review and update our estimates of costs quarterly or more frequently when circumstances significantly change, which can affect the profitability of our contracts.

For contracts where revenue is recognized over time, we recognize changes in estimated contract revenues, costs and profits using the cumulative catch-up method of accounting. This method recognizes the cumulative effect of changes on current and prior periods with the impact of the change from inception-to-date recorded in the current period. We have net revenue recognized in the current year from performance obligations satisfied in the prior year due to changes in our estimated costs to complete the related performance obligations. We recognize anticipated losses on contracts in full in the period in which the losses become known.

The impact of adjustments in contract estimates on our operating earnings can be reflected in either revenue or operating costs and expenses. The aggregate impact of adjustments in contract estimates decreased our earnings before income tax and diluted earnings per share by \$0.9 million and \$0.03 per share, respectively, in 2022.

Income Taxes

We operate in numerous taxing jurisdictions and are subject to examination by various U.S. Federal, state and foreign jurisdictions for various tax periods. 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.

We account for income taxes under the asset and liability method. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. We measure deferred tax assets and liabilities using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. We may reduce deferred tax assets by a valuation allowance if it is more likely than not that some portion of the deferred tax assets will not be realized. We recognize the effect on deferred tax assets and liabilities of a change in tax rates in income in the period that includes the enactment date. We regularly review our deferred tax assets for recoverability and establish a valuation allowance when Management believes it is more likely than not such assets will not be recovered, taking into consideration historical operating results, expectations of future earnings, tax planning strategies, and the expected timing of the reversals of existing temporary differences.

Goodwill and Other Long-Lived Assets

Our Management annually reviews goodwill and other long-lived assets for impairment or whenever events or changes in circumstances indicate the carrying amount may not be recoverable. If we determine that the carrying value of the goodwill and other long-lived assets may not be recoverable, we record a permanent impairment charge for the amount by which the carrying value of the goodwill and other long-lived assets exceeds its fair value. We measure fair value based on a discounted cash flow method using a discount rate determined by Management to be commensurate with the risk inherent in each of our reporting units' or asset groups' current business models. Our estimates of cash flows and discount rate are subject to change due to the economic environment, including such factors as interest rates, expected market returns and volatility of markets served. We believe that Management's estimates of future cash flows and fair value are reasonable; however, changes in estimates could result in impairment charges. At September 30, 2022 we have determined that no goodwill or other long-lived assets were impaired.

We amortize intangible assets with estimable useful lives over their respective estimated useful lives to their estimated residual values, and review them for impairment whenever events or changes in business circumstances indicate the carrying value of the assets may not be recoverable.

Other Matters

Quantitative and Qualitative Disclosures about Market Risk

Market risks relating to our operations result primarily from changes in interest rates and changes in foreign currency exchange rates. We are exposed to market risk related to changes in interest rates, and we selectively use derivative financial instruments, including forward contracts and swaps, to manage these risks. Our Canadian subsidiary Morgan Schaffer has entered into foreign exchange contracts to manage foreign currency risk, because a portion of their revenue is denominated in U.S. dollars. We report all derivative instruments on our balance sheet at fair value. For derivative instruments designated as cash flow hedges, we defer the gain or loss on the derivative in accumulated other comprehensive income until recognized in earnings with the underlying hedged item.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Not Applicable.

Item 8. Financial Statements and Supplementary Data

The information required by this Item is incorporated by reference to the Consolidated Financial Statements of the Company, the Notes thereto, and the related Reports of Independent Registered Public Accounting Firm of Grant Thornton LLP and KPMG LLP, as set forth in the Financial Information section of this Annual Report, an Index to which is provided on page F-1.

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

Not Applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officer (“Certifying Officers”) carried out an evaluation of the effectiveness of the design and operation of the Company’s disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act) as of September 30, 2022. The evaluation was conducted under the supervision and with the participation of the Company’s Management, including the Company’s Chief Executive Officer and Chief Financial Officer, using the Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms. Based upon that evaluation, the Company’s Chief Executive Officer and Chief Financial Officer concluded that the Company’s disclosure controls and procedures were effective as of September 30, 2022.

Management’s Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. The Company’s Management, with participation of the Certifying Officers, under the oversight of our Board of Directors, evaluated the effectiveness of the Company’s internal control over financial reporting as of September 30, 2022 using the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Because of its inherent limitations, any system of internal control over financial reporting, no matter how well designed, may not prevent or detect misstatement due to the possibility that a control can be circumvented or overridden or that misstatements due to error or fraud may occur that are not detected. Also, because of changes in conditions, internal control effectiveness may vary over time.

Management assessed the effectiveness of the Company’s internal control over financial reporting as of September 30, 2022, using criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO and concluded that the Company maintained effective internal control over financial reporting as of September 30, 2022, based on these criteria.

Our internal control over financial reporting as of September 30, 2022, has been audited by Grant Thornton, an independent registered public accounting firm, as stated in its report which is included herein.

Changes in Internal Control Over Financial Reporting

No changes in the Company’s internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) occurred during the fiscal quarter ended September 30, 2022, that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspection

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information regarding our directors, nominees and nominating procedures, Code of Ethics, Audit and Finance Committee, and non-compliance (if any) with Section 16(a) of the Securities Exchange Act of 1934 is hereby incorporated by reference to the sections captioned “Proposal 1: Election of Directors” and “Securities Ownership of Directors and Executive Officers” in the 2022 Proxy Statement.

Information regarding our executive officers is set forth in Item 1, “Business – Information about our Executive Officers,” above.

Item 11. Executive Compensation

Information regarding our compensation committee and director and executive officer compensation is hereby incorporated by reference to the sections captioned “Committees – Compensation Committee Interlocks and Insider Participation,” “Director Compensation” and “Proposal 3: Advisory Vote to Approve Executive Compensation” in the 2022 Proxy Statement.

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

Information regarding the beneficial ownership of our common stock by our directors, director nominees and executive officers individually and as a group, and by any known holder of five percent or more of the common stock, is hereby incorporated by reference to the sections captioned “Securities Ownership of Directors and Executive Officers” and “Securities Ownership of Certain Beneficial Owners” in the 2022 Proxy Statement.

Information regarding shares of our common stock issued or issuable under our equity compensation plans is hereby incorporated by reference to the section captioned “Other Equity Compensation Plan Information” in the 2022 Proxy Statement.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information regarding transactions with related parties and the independence of our directors, nominees for directors and members of the committees of our board of directors is hereby incorporated by reference to the section captioned “Proposal 1: Election of Directors” in the 2022 Proxy Statement.

Item 14. Principal Accountant Fees and Services

Information regarding our independent registered public accounting firm, its fees and services, and our Audit and Finance Committee’s pre-approval policies and procedures regarding such fees and services, is hereby incorporated by reference to the section captioned “Proposal 5: Ratification of Appointment of Independent Registered Public Accounting Firm” in the 2022 Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) The following documents are filed as a part of this Report:

- (1) **Financial Statements.** The Consolidated Financial Statements of the Company, and the Report of Independent Registered Public Accounting Firm thereon of KPMG LLP, are included in this Report beginning on page F-1; an Index thereto is set forth on page F-1.
- (2) **Financial Statement Schedules.** Financial Statement Schedules are omitted because either they are not applicable or the required information is included in the Consolidated Financial Statements or the Notes thereto.
- (3) **Exhibits.** The following exhibits are filed with this Report or incorporated herein by reference to the document location indicated:

<u>Exhibit No.</u>	<u>Description</u>	<u>Document Location</u>
3.1(a)	Restated Articles of Incorporation	Exhibit 3(a) to the Company's Form 10-K for the fiscal year ended September 30, 1999
3.1(b)	Amended Certificate of Designation, Preferences and Rights of Series A Participating Cumulative Preferred Stock	Exhibit 4(e) to the Company's Form 10-Q for the fiscal quarter ended March 31, 2000
3.1(c)	Articles of Merger, effective July 10, 2000	Exhibit 3(c) to the Company's Form 10-Q for the fiscal quarter ended June 30, 2000
3.1(d)	Amendment to Articles of Incorporation, effective February 5, 2018	Exhibit 3.1 to the Company's Form 8-K filed February 7, 2018
3.2	Bylaws	Exhibit 3.1 to the Company's Form 8-K filed November 19, 2019
3.3	Bylaws, as amended and restated effective as of January 1, 2023	Exhibit 3.1 to the Company's Form 8-K filed November 22, 2022
4.1(a)	Description of Common Stock	Exhibit 4.1(a) to the Company's Form 10-K for the fiscal year ended September 30, 2019
4.1(b)	Specimen revised Common Stock Certificate	Exhibit 4.1 to the Company's Form 10-Q for the fiscal quarter ended March 31, 2010
4.2	Credit Agreement dated September 27, 2019, incorporated by reference to Exhibit 10.1 hereto	Exhibit 10.1 to the Company's Form 8-K filed September 30, 2019
10.1	Credit Agreement dated as of September 27, 2019 among ESCO Technologies Inc., the Foreign Subsidiary Borrowers party thereto, the Lenders party thereto, JPMorgan Chase Bank, N.A. as Administrative Agent, BMO Harris Bank N.A. as Syndication Agent, and Bank of America, N.A., SunTrust Bank, U.S. Bank National Association and Wells Fargo Bank, National Association as Co-Documentation Agents	Exhibit 10.1 to the Company's Form 8-K filed September 30, 2019
10.2	Form of Indemnification Agreement with each of ESCO's non-employee directors	Exhibit 10.1 to the Company's Form 10-K for the fiscal year ended September 30, 2012
10.3(a)	* First Amendment to the ESCO Electronics Corporation Supplemental Executive Retirement Plan, effective August 2, 1993 (comprising restatement of entire Plan)	Exhibit 10.2(a) to the Company's Form 10-K for the fiscal year ended September 30, 2012
10.3(b)	* Second Amendment to Supplemental Executive Retirement Plan, effective May 1, 2001	Exhibit 10.4 to the Company's Form 10-K for the fiscal year ended September 30, 2001

<u>Exhibit No.</u>	<u>Description</u>	<u>Document Location</u>
10.3(c)	* Form of Supplemental Executive Retirement Plan Agreement	Exhibit 10.28 to the Company's Form 10-K for the fiscal year ended September 30, 2002
10.4	* Directors' Extended Compensation Plan, adopted effective October 11, 1993, restated to include all amendments through August 7, 2013 (current as of November 2021)	Exhibit 10.5 to the Company's Form 10-K for the fiscal year ended September 30, 2019
10.5(a)	* Compensation Plan For Non-Employee Directors, as amended and restated to reflect all amendments through December 8, 2020	Exhibit 10.1 to the Company's Form 8-K filed December 9, 2020
10.5(b)	* Sub-Plan for Compensation of Non-Employee Directors under 2018 Omnibus Incentive Plan	Exhibit 10.1 to the Company's Form 10-Q filed May 10, 2022
10.5(c)	* Form of Director Share Award Agreement (Non-Employee Director)	Exhibit 10.2 to the Company's Form 10-Q filed May 10, 2022
10.6(a)	* 2018 Omnibus Incentive Plan	Exhibit 10.1 to the Company's Form 8-K filed February 6, 2018
10.6(b)	* 2018 Omnibus Incentive Plan as Amended and Restated November 17, 2020	Exhibit 10.3 to the Company's Form 8-K filed November 19, 2020
10.7(a)	* Form of 2020-21 Awards of Performance-Accelerated Restricted Shares under 2018 Omnibus Incentive Plan	Exhibit 10.1 to the Company's Form 10-Q filed August 9, 2021
10.7(b)	* Form of Restricted Share Unit Awards to Executive Officers under 2018 Omnibus Incentive Plan (2021)	Exhibit 10.2 to the Company's Form 10-Q filed August 9, 2021
10.7(c)	* Form of Restricted Share Unit Awards to Executive Officers under 2018 Omnibus Incentive Plan (2022)	Exhibit 10.1 to the Company's Form 10-Q filed August 9, 2022
10.7(d)	* Form of Performance Share Unit Awards to Executive Officers under 2018 Omnibus Incentive Plan	Exhibit 10.1 to the Company's Form 10-Q filed February 7, 2022
10.8(a)	Eighth Amendment and Restatement of Employee Stock Purchase Plan, effective August 2, 2018	Exhibit 10.7 to the Company's Form 10-K for the fiscal year ended September 30, 2018
10.8(b)	Ninth Amendment and Restatement of Employee Stock Purchase Plan, effective February 5, 2019	Exhibit 10.1 to the Company's Form 8-K filed February 7, 2019
10.9	* Performance Compensation Plan for Corporate, Subsidiary and Division Officers and Key Managers, adopted August 2, 1993, as amended and restated through February 4, 2019	Exhibit 10.1 to the Company's Form 8-K filed November 19, 2019
10.10	* Compensation Recovery Policy, adopted effective February 4, 2010	Exhibit 10.6 to the Company's Form 8-K filed February 10, 2010
10.11	* Fourth Amended and Restated Severance Plan dated November 17, 2020	Exhibit 10.2 to the Company's Form 8-K filed November 19, 2020
10.12	* Employment and Compensation Agreement with Victor L. Richey effective May 10, 2021	Exhibit 10.3 to the Company's Form 10-Q filed August 9, 2021
10.13	* Employment and Compensation Agreement with Christopher L. Tucker effective April 30, 2021	Exhibit 10.4 to the Company's Form 10-Q filed August 9, 2021
10.14	* Employment and Compensation Agreement with David M. Schatz effective April 30, 2021	Exhibit 10.5 to the Company's Form 10-Q filed August 9, 2021
21	Subsidiaries of the Company	Filed herewith

<u>Exhibit No.</u>	<u>Description</u>	<u>Document Location</u>
23	Consent of Independent Registered Public Accounting Firm	Filed herewith
31.1	Certification of Chief Executive Officer	Filed herewith
31.2	Certification of Chief Financial Officer	Filed herewith
32	** Certification of Chief Executive Officer and Chief Financial Officer	Furnished herewith
101.INS	*** Inline XBRL Instance Document	Submitted herewith
101.SCH	*** Inline XBRL Schema Document	Submitted herewith
101.CAL	*** Inline XBRL Calculation Linkbase Document	Submitted herewith
101.LAB	*** Inline XBRL Label Linkbase Document	Submitted herewith
101.PRE	*** Inline XBRL Presentation Linkbase Document	Submitted herewith
101.DEF	*** Inline XBRL Definition Linkbase Document	Submitted herewith
104	*** Cover Page Inline Interactive Data File (contained in Exhibit 101)	Submitted herewith

* Indicates a management contract or compensatory plan or arrangement.

** Furnished (and not filed) herewith pursuant to Item 601(b)(32)(ii) of Regulation S-K.

*** Exhibits 101 and 104 to this report consist of documents formatted in XBRL (Extensible Business Reporting Language) and filed with the Securities and Exchange Commission; they are not included in printed copies of this Report.

Item 16. Form 10-K Summary

Not applicable.

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.

ESCO TECHNOLOGIES INC.

By: /s/ Victor L. Richey
Victor L. Richey
President and Chief Executive Officer

Date: November 29, 2022

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Victor L. Richey</u> Victor L. Richey	Chairman, President, Chief Executive Officer (Principal Executive Officer) and Director	November 29, 2022
<u>/s/ Christopher L. Tucker</u> Christopher L. Tucker	Senior Vice President and Chief Financial Officer (Principal Accounting Officer)	November 29, 2022
<u>/s/ Patrick M. Dewar</u> Patrick M. Dewar	Director	November 29, 2022
<u>/s/ Janice L. Hess</u> Janice L. Hess	Director	November 29, 2022
<u>/s/ Vinod M. Khilnani</u> Vinod M. Khilnani	Director	November 29, 2022
<u>/s/ Leon J. Olivier</u> Leon J. Olivier	Director	November 29, 2022
<u>/s/ Robert J. Phillippy</u> Robert J. Phillippy	Director	November 29, 2022
<u>/s/ James M. Stolze</u> James M. Stolze	Director	November 29, 2022
<u>/s/ Gloria L. Valdez</u> Gloria L. Valdez	Director	November 29, 2022

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FINANCIAL INFORMATION

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REPORTS OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM, PCAOB ID NUMBER 248

Board of Directors and Shareholders
ESCO Technologies Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheet of ESCO Technologies Inc. (a Missouri corporation) and subsidiaries (the “Company”) as of September 30, 2022, and the related consolidated statements of operations, comprehensive income, shareholders’ equity, and cash flows for the fiscal year ended September 30, 2022, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2022, and the results of its operations and its cash flows for the fiscal year ended September 30, 2022, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of September 30, 2022, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated November 29, 2022 expressed an unqualified opinion.

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 audit 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 audit provides a reasonable basis for our opinion.

Critical audit matter

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

Revenue Recognition – Estimate of contract costs expected at completion

As described further in Notes 1 and 15 to the financial statements, the Company’s Aerospace & Defense and Test segments enter into certain long-term fixed price contracts with their customers to produce certain products that do not have an alternative use to the Company and for which the Company has an enforceable right to payment for costs incurred to date plus a reasonable margin. For the Aerospace & Defense segment, the Company uses a cost-to-cost method to recognize the revenue for these contracts over time. Using the cost-to-cost method, the Company measures progress to contract completion using the ratio of contract costs incurred to date compared to estimated total contract costs at completion. Judgment is required in estimating the total contract costs at completion due to the unique specifications and requirements for each individual contract relating to the design, development, manufacturing, and installation of the built-to-spec products.

We identified the determination of the estimated total contract costs at completion for certain contracts in the Aerospace & Defense segment for which revenue is recognized over time using the cost-to-cost method as a critical audit matter.

The principal considerations for our determination that the estimated total contract costs at completion is a critical audit matter are that the estimated total contract costs at completion require complex judgment to evaluate the engineering and production requirements of the contract and the related labor and materials costs, which are assumptions with a high level of estimation uncertainty and susceptibility to potential management bias. Changes to the assumptions used in developing these estimates may significantly impact the net sales and earnings recorded during the fiscal year.

Our audit procedures related to the estimated total contract costs at completion include the following, among others. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's revenue recognition and job cost processes. This included controls over the accumulation and estimation of costs to complete the contracts. For a selection of completed contracts, we compared the Company's historical estimated costs and profit margin to the actual costs and profit margin to assess the Company's ability to accurately estimate costs. We also tested the Company's assumptions for labor hours and materials to be incurred for a selection of in-process contracts by:

- inspecting a sample of underlying contracts, including any applicable amendments, to obtain an understanding of the contractual requirements and deliverables and the nature of the costs necessary to fulfill those contracts
- assessing the progress towards completion by obtaining customer validation of the achievement of milestones, if applicable, and performing inquiries of key financial and operations executives to evaluate the progress to date and factors impacting the estimated total contract costs expected at completion
- comparing the actual costs incurred to date, as a percentage of the estimated total contract costs at completion, and comparing that to the revenue recognized to date
- comparing the margins to date on selected contracts to similar products previously produced, if applicable
- evaluating the estimates for indicators of management bias through the procedures described above.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2021.

St. Louis, Missouri
November 29, 2022

Board of Directors and Shareholders
ESCO Technologies Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of ESCO Technologies Inc. (a Missouri corporation) and subsidiaries (the “Company”) as of September 30, 2022, based on criteria established in the 2013 *Internal Control—Integrated Framework* 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 September 30, 2022, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended September 30, 2022, and our report dated November 29, 2022 expressed an unqualified opinion on those financial statements.

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/ GRANT THORNTON LLP

St. Louis, Missouri
November 29, 2022

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM,
PCAOB ID NUMBER 185**

To the Shareholders and Board of Directors
ESCO Technologies Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of ESCO Technologies Inc. and subsidiaries (the Company) as of September 30, 2021, the related consolidated statements of operations, comprehensive income, shareholders' equity, and cash flows for each of the years in the two-year period ended September 30, 2021, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2021, and the results of its operations and its cash flows for each of the years in the two-year period ended September 30, 2021, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

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

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

/s/ KPMG LLP

We served as the Company's auditor from 1990 to 2021.

St. Louis, Missouri
November 29, 2021

CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in thousands, except per share amounts)

Years ended September 30,	2022	2021	2020
Net sales	\$ 857,502	715,440	730,471
Costs and expenses:			
Cost of sales	525,457	445,045	458,311
Selling, general and administrative expenses	195,127	167,534	159,490
Amortization of intangible assets	25,936	20,829	21,812
Interest expense, net	4,851	2,255	6,730
Pension plan termination charge	—	—	40,600
Other (income) expenses, net	(304)	(894)	7,122
Total costs and expenses	751,067	634,769	694,065
Earnings before income tax	106,435	80,671	36,406
Income tax expense	24,115	17,175	13,510
Net earnings from continuing operations	82,320	63,496	22,896
Net gain on sale from discontinued operations, net of tax expense of \$23,501	—	—	76,515
Net earnings from discontinued operations	—	—	76,515
Net earnings	\$ 82,320	63,496	99,411
 Earnings per share:			
Basic:			
Continuing operations	\$ 3.17	2.44	0.88
Discontinued operations	—	—	2.94
Net earnings	\$ 3.17	2.44	3.82
Diluted:			
Continuing operations	\$ 3.16	2.42	0.88
Discontinued operations	—	—	2.93
Net earnings	\$ 3.16	2.42	3.81
 Average common shares outstanding (in thousands):			
Basic	25,933	26,046	26,010
Diluted	26,067	26,225	26,135

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Dollars in thousands)

Years ended September 30,	2022	2021	2020
Net earnings	\$ 82,320	63,496	99,411
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments	(28,876)	1,496	3,172
Pension plan termination	—	—	40,600
Amortization of prior service costs, actuarial losses and other	(727)	—	(3,455)
Total other comprehensive (loss) income, net of tax	(29,603)	1,496	40,317
Comprehensive income	\$ 52,717	64,992	139,728

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEETS

(Dollars in thousands)
As of September 30,

	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 97,724	56,232
Accounts receivable, less allowance for credit losses of \$2,612 and \$1,949 in 2022 and 2021, respectively	164,645	146,341
Contract assets, net	125,154	93,771
Inventories, net	162,403	147,148
Other current assets	22,696	22,662
Total current assets	572,622	466,154
Property, plant and equipment:		
Land and land improvements	12,126	10,547
Buildings and leasehold improvements	110,306	109,279
Machinery and equipment	187,287	176,447
Construction in progress	11,576	5,543
	321,295	301,816
Less accumulated depreciation and amortization	(165,322)	(147,551)
Net property, plant and equipment	155,973	154,265
Intangible assets, net		
Goodwill	394,464	409,250
Operating lease assets, net	492,709	504,853
Other assets	29,150	31,846
	9,538	10,977
Total Assets	\$ 1,654,456	1,577,345

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEETS

(Dollars in thousands)
As of September 30,

	2022	2021
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Current maturities of long-term debt and short-term borrowings	\$ 20,000	20,000
Accounts payable	78,746	56,669
Contract liabilities, net	125,009	106,045
Accrued salaries	40,572	39,768
Accrued other expenses	53,802	52,513
Total current liabilities	318,129	274,995
Deferred tax liabilities, net	82,023	73,560
Non-current operating lease liabilities	24,853	28,032
Other liabilities	48,294	47,062
Long-term debt	133,000	134,000
Total liabilities	606,299	557,649
Shareholders' equity:		
Preferred stock, par value \$.01 per share, authorized 10,000,000 shares		
Common stock, par value \$.01 per share, authorized 50,000,000 shares; issued 30,707,748 and 30,666,173 shares in 2022 and 2021, respectively	307	307
Additional paid-in capital	301,553	297,644
Retained earnings	905,022	830,989
Accumulated other comprehensive loss, net of tax	(31,764)	(2,161)
	1,175,118	1,126,779
Less treasury stock, at cost (4,854,997 and 4,604,741 common shares in 2022 and 2021, respectively)	(126,961)	(107,083)
Total shareholders' equity	1,048,157	1,019,696
Total Liabilities and Shareholders' Equity	\$ 1,654,456	1,577,345

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In thousands)	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total
	Shares	Amount					
Balance, September 30, 2019	30,597	\$ 306	292,408	684,741	(43,974)	(107,259)	826,222
Comprehensive income (loss):							
Net earnings	—	—	—	99,411	—	—	99,411
Translation adjustments, net of tax of \$0	—	—	—	—	3,172	—	3,172
Pension termination and net unrecognized actuarial loss, net of tax of \$(1,161)	—	—	—	—	37,145	—	37,145
Cash dividends declared (\$0.32 per share)	—	—	—	(8,323)	—	—	(8,323)
Stock compensation plans, net of tax of \$0	49	—	1,274	—	—	125	1,399
Balance, September 30, 2020	30,646	\$ 306	293,682	775,829	(3,657)	(107,134)	959,026
Comprehensive income (loss):							
Net earnings	—	—	—	63,496	—	—	63,496
Translation adjustments, net of tax of \$0	—	—	—	—	1,496	—	1,496
Cash dividends declared (\$0.32 per share)	—	—	—	(8,336)	—	—	(8,336)
Stock compensation plans, net of tax of \$0	20	1	3,962	—	—	51	4,014
Balance, September 30, 2021	30,666	\$ 307	297,644	830,989	(2,161)	(107,083)	1,019,696
Comprehensive income (loss):							
Net earnings	—	—	—	82,320	—	—	82,320
Net unrecognized actuarial loss – SERP	—	—	—	—	(727)	—	(727)
Translation adjustments, net of tax of \$0	—	—	—	—	(28,876)	—	(28,876)
Cash dividends declared (\$0.32 per share)	—	—	—	(8,287)	—	—	(8,287)
Purchases of common stock into treasury	—	—	—	—	—	(19,878)	(19,878)
Stock compensation plans, net of tax of \$0	42	—	3,909	—	—	—	3,909
Balance, September 30, 2022	30,708	307	301,553	905,022	(31,764)	(126,961)	1,048,157

See accompanying Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in thousands)

Years ended September 30,	2022	2021	2020
Cash flows from operating activities:			
Net earnings	\$ 82,320	63,496	99,411
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Net earnings from discontinued operations, net of tax	—	—	(76,515)
Depreciation and amortization	48,343	42,049	41,338
Stock compensation expense	7,320	6,914	5,550
Changes in assets and liabilities	(11,654)	15,671	26,585
Gain on sale of building and land	—	(1,950)	—
Effect of deferred taxes on tax provision	8,946	(3,041)	(2,785)
Pension contributions	—	—	(25,650)
Pension plan termination charge	—	—	40,600
Net cash provided by operating activities – continuing operations	<u>135,275</u>	<u>123,139</u>	<u>108,534</u>
Net cash (used) by discontinued operations	—	—	(26,254)
Net cash provided by operating activities	<u>135,275</u>	<u>123,139</u>	<u>82,280</u>
Cash flows from investing activities:			
Acquisition of businesses, net of cash acquired	(10,906)	(168,903)	—
Capital expenditures	(32,101)	(26,705)	(32,108)
Additions to capitalized software	(12,912)	(8,783)	(9,023)
Proceeds from sale of building and land	—	1,950	—
Net cash used by investing activities – continuing operations	<u>(55,919)</u>	<u>(202,441)</u>	<u>(41,131)</u>
Net cash provided by investing activities – discontinued operations	—	—	182,084
Net cash (used) provided by investing activities	<u>(55,919)</u>	<u>(202,441)</u>	<u>140,953</u>
Cash flows from financing activities:			
Proceeds from long-term debt	100,000	216,000	12,368
Principal payments on long-term debt	(101,000)	(124,368)	(235,000)
Dividends paid	(8,268)	(8,336)	(8,323)
Purchases of common stock into treasury	(19,878)	—	—
Other	(2,976)	(1,823)	(3,125)
Net cash (used) provided by financing activities – continuing operations	<u>(32,122)</u>	<u>81,473</u>	<u>(234,080)</u>
Net cash used by financing activities – discontinued operations	—	—	(2,140)
Net cash (used) provided by financing activities	<u>(32,122)</u>	<u>81,473</u>	<u>(236,220)</u>
Effect of exchange rate changes on cash and cash equivalents	<u>(5,742)</u>	<u>1,501</u>	<u>3,739</u>
Net increase (decrease) in cash and cash equivalents	<u>41,492</u>	<u>3,672</u>	<u>(9,248)</u>
Cash and cash equivalents at beginning of year	<u>56,232</u>	<u>52,560</u>	<u>61,808</u>
Cash and cash equivalents at end of year	<u>\$ 97,724</u>	<u>56,232</u>	<u>52,560</u>
Changes in assets and liabilities:			
Accounts receivable, net	\$ (17,676)	11,266	14,633
Contract assets and liabilities, net	(12,419)	8,974	35,283
Inventories	(13,788)	612	(10,340)
Other assets and liabilities	9,412	(477)	(8,609)
Accounts payable	21,985	(688)	(13,275)
Accrued expenses	832	(3,836)	8,893
	<u>\$ (11,654)</u>	<u>15,671</u>	<u>26,585</u>
Supplemental cash flow information:			
Interest paid	\$ 2,835	590	5,869
Income taxes paid (including state & foreign)	9,856	26,054	37,714

See accompanying Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

A. Principles of Consolidation

The Consolidated Financial Statements include the accounts of ESCO Technologies Inc. (ESCO) and its wholly owned subsidiaries. Except where the context indicates otherwise, the terms “Company”, “we”, “our” and “us” are used in this report to refer to ESCO together with its subsidiaries through which its businesses are conducted. All significant intercompany transactions and accounts have been eliminated in consolidation.

B. Basis of Presentation

Our fiscal year ends on September 30. Throughout the Consolidated Financial Statements, unless the context indicates otherwise, references to a year (for example 2022) refer to fiscal year ending on September 30 of that year. Certain prior period amounts have been reclassified to conform to the current period presentation.

Our former Technical Packaging segment is reflected as discontinued operations in the Consolidated Financial Statements and related notes for all periods presented, in accordance with accounting principles generally accepted in the United States of America (GAAP).

C. Nature of Operations

We are organized based on the products and services we offer and we currently classify our business operations in three segments for financial reporting purposes: Aerospace & Defense (A&D), Utility Solutions Group (USG), and RF Shielding and Test (Test).

A&D: The companies within this segment primarily design and manufacture specialty filtration products, including hydraulic filter elements and fluid control devices used in commercial aerospace applications; unique filter mechanisms used in micro-propulsion devices for satellites; custom designed filters for manned aircraft and submarines; products and systems to reduce vibration and/or acoustic signatures and otherwise reduce or obscure a vessel’s signature, and other communications, sealing, surface control and hydrodynamic related applications to enhance U.S. Navy maritime survivability; precision-tolerance machined components for the aerospace and defense industry; and metal processing services; and miniature electro-explosive devices for military aircraft ejection seats and missile arming devices.

USG: The companies within this segment provide diagnostic testing solutions that enable electric power grid operators to assess the integrity of high-voltage power delivery equipment, as well as decision support tools for the renewable energy industry, primarily wind and solar.

Test: The companies within this segment provide their customers with the ability to identify, measure and contain magnetic, electromagnetic and acoustic energy.

In addition, for reporting certain financial information we treat Corporate activities as a separate segment.

D. Use of Estimates

The preparation of financial statements in conformity with GAAP requires Management to make estimates and assumptions that affect the reported amounts of assets and liabilities. Actual results could differ from those estimates.

E. Revenue Recognition

We recognize revenue when control of the goods or services promised under the contract is transferred to the customer either at a point in time (e.g., upon delivery) or over time (e.g., as we perform under the contract). We account for a contract when it has approval and commitment from both parties, the rights and payment terms of the parties are identified, the contract has commercial substance and collectability of consideration is probable. We review contracts to determine whether there are one or multiple performance obligations. A performance obligation is a promise to transfer a distinct good or service to a customer and represents the unit of accounting for revenue recognition. For contracts with multiple performance obligations, we allocate the expected consideration, or the transaction price, to each performance obligation identified in the contract based on the relative standalone selling price of each performance obligation. We then recognize revenue for the transaction price allocated to the

performance obligation when control of the promised goods or services underlying the performance obligation is transferred.

Payment terms with our customers vary by the type and location of the customer and the products or services offered. We do not adjust the promised amount of consideration for the effects of significant financing components based on the expectation that the period between when we transfer a promised good or service to a customer and when the customer pays for that good or service will be one year or less. Arrangements with customers that include payment terms extending beyond one year are not significant. We account for shipping and handling costs on a gross basis and include them in net sales. We account for taxes collected from customers and remitted to governmental authorities on a net basis and exclude them from net sales.

A&D: Within the A&D segment, approximately 40% of revenues (approximately 17% of consolidated revenues) are recognized at a point in time when products are shipped (when control of the goods transfers) to unaffiliated customers. The related contracts are with commercial and military customers and have a single performance obligation as there is only one good promised or the promise to transfer the goods or services is not distinct or separately identifiable from other promises in the contract. The transaction price for these contracts reflects our estimate of returns and discounts, which are based on historical, current and forecasted information to determine the expected amount to which we will be entitled in exchange for transferring the promised goods or services to the customer. The realization of variable consideration occurs within a short period of time from product delivery; therefore, the time value of money effect is not significant. Amounts billed to customers for shipping and handling are included in the transaction price as the related activities are performed prior to the customer obtaining control of the products. They generally are not treated as separate performance obligations as these costs fulfill a promise to transfer the product to the customer and are expensed in cost of goods sold in the period they are incurred. Taxes collected from customers and remitted to government authorities are recorded on a net basis. We primarily provide standard warranty programs for products in our commercial businesses for periods that typically range from one to two years. These assurance-type programs typically cannot be purchased separately and do not meet the criteria to be considered a performance obligation.

Approximately 60% of the segment's revenues (approximately 25% of consolidated revenues) are accounted for over time as the product does not have an alternative use and we have an enforceable right to payment for costs incurred plus a reasonable margin or the inventory is owned by the customer. The related contracts are primarily cost-plus or fixed price contracts related to the design, development and manufacture of complex fluid control products, quiet valves, manifolds, shock and vibration dampening, thermal insulation and systems primarily for the commercial aerospace and military (U.S. Government) markets. The contracts may contain multiple products, which are capable of being distinct as the customer could benefit from each product on its own or together with other readily available resources. Each product is separately identifiable from the other products in the contract. Therefore, each product is distinct in context of the contract and will be accounted for as a separate performance obligation. Our contracts are frequently modified for changes in contract specifications and requirements. Most of our contract modifications are for products that are not distinct from the existing contract and are accounted for as part of that existing contract.

Contracts with the U.S. Government generally contain clauses that provide lien rights to work-in-process along with clauses that allow the customer to unilaterally terminate the contract for convenience, pay us for costs incurred plus a reasonable profit and take control of any work-in-process. Due to the continuous transfer of control to the U.S. Government, we recognize revenue over the time that we perform under the contract.

Selecting the method to measure progress towards completion for the commercial and military contracts requires judgment and is based on the nature of the products or service to be provided. We generally use the cost-to-cost method to measure progress for our Aerospace & Defense segment contracts, as the rate at which costs are incurred to fulfill a contract best depicts the transfer of control to the customer. Under this method, we measure the extent of progress towards completion based on the ratio of costs incurred to date to the estimated costs at completion of the performance obligation, and record revenue proportionally as costs are incurred based on an estimated profit margin.

The transaction price for our contracts represents our best estimate of the consideration we will receive and includes assumptions regarding variable consideration as applicable. Certain of our long-term contracts contain incentive fees that can increase the transaction price. These variable amounts generally are awarded upon achievement of certain performance metrics, program milestones or cost targets and can be based upon customer discretion. We include estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of our anticipated performance and all other information that is reasonably available to us.

Total contract cost is estimated utilizing current contract specifications and expected engineering requirements. Contract costs typically are incurred over a period of several months to one or more years, and the estimation of these costs requires judgment. Our cost estimation process is based on the professional knowledge and experience of engineers and program managers along with finance professionals. We review and update our projections of costs quarterly or more frequently when circumstances significantly change.

Under the typical payment terms of our long term fixed price contracts, the customer pays us either performance-based or progress payments. Performance-based payments represent interim payments based on quantifiable measures of performance or on the achievement of specified events or milestones. Progress payments are interim payments of costs incurred as the work progresses. Because of the timing difference of revenue recognition and customer billing, these contracts will often result in revenue recognized in excess of billings and billings in excess of costs incurred, which we present as contract assets and contract liabilities, respectively, in the Consolidated Balance Sheets. We classify amounts billed and due from our customers in Accounts receivable, net. For short term fixed price and cost-type contracts, we are generally paid within a short period of time.

For contracts where revenue is recognized over time, we recognize changes in estimated contract revenues, costs and profits using the cumulative catch-up method of accounting. This method recognizes the cumulative effect of changes on current and prior periods with the impact of the change from inception-to-date recorded in the current period. We have net revenue recognized in the current year from performance obligations satisfied in the prior year due to changes in our estimated costs to complete the related performance obligations. We recognize anticipated losses on contracts in full in the period in which the losses become known.

USG: Within the USG segment, approximately 80% of revenues (approximately 25% of consolidated revenues) are recognized at a point in time when products are shipped (when control of the goods transfers) to unaffiliated customers. The related contracts are with commercial customers. The contracts may contain multiple products which are capable of being distinct as the customer could benefit from each product on its own or together with other readily available resources. Each product is separately identifiable from the other products in the contract. Therefore, each product is distinct in context of the contract and is accounted for as a separate performance obligation. The transaction price for these contracts reflects our estimate of variable consideration in the form of returns, rebates and discounts, which are based on historical, current and forecasted information to determine the expected amount to which we will be entitled in exchange for transferring the promised goods or services to the customer. The realization of variable consideration occurs within a short period of time from product delivery; therefore, the time value of money effect is not significant. Amounts billed to customers for shipping and handling are included in the transaction price as the related activities are performed prior to customer obtaining control of the products. We generally do not treat them as separate performance obligations as these costs fulfill a promise to transfer the product to the customer and are expensed in selling, general and administrative costs in the period they are incurred. We record taxes collected from customers and remitted to government authorities on a net basis. We primarily provide standard warranty programs for products in our commercial businesses for periods that typically range from one to two years. These assurance-type programs typically cannot be purchased separately and do not meet the criteria to be considered a performance obligation.

Approximately 20% of the segment's revenues (approximately 6% of consolidated revenues) are recognized over time as services are performed. The services accounted for under this method include an obligation to provide testing services using hardware and embedded software, software maintenance, training, lab testing, and consulting services. Typically, the related contracts contain a bundle of goods and services that are integrated in the context of the contract. Therefore, the goods and services are not distinct and we have a single performance obligation. Selecting the method to measure progress towards completion for these contracts requires judgment and is based on the nature of the products and service to be provided. We will recognize revenue as a series of distinct services based on each day of providing services (straight-line over the contract term) for our USG segment contracts. The transaction price for our contracts represents our best estimate of the consideration we will receive and includes assumptions regarding variable consideration as applicable. Under the typical payment terms of our service contracts, the customer pays us in advance of when services are performed. Because of the timing difference of revenue recognition and customer payment, which is typically received upon commencement of the contract, these contracts result in deferred revenue, which we present as contract liabilities, in the Consolidated Balance Sheets.

Included in this category, approximately 6% of the segment's revenues (approximately 2% of consolidated revenues) are recognized based on the terms of the software contract. For contracts that transfer a software license to the customer, revenue will be recognized at a point in time. These type of software contracts represent a right to use the software, or a functional license, in which revenue should be recognized upon transfer of the license. For contracts in software as a service (SaaS) arrangements, revenue will be recognized over time. The customer receives and

consumes the benefits of the SaaS arrangement through access to the system which is for a stated period. We will recognize revenue based on each day of providing access (straight-line over the contract term). The transaction price for our contracts represents our best estimate of the consideration we will receive and includes assumptions regarding variable consideration as applicable. Under the typical payment terms of our software contracts, the customer pays us in advance of when services are performed. Because of the timing difference of revenue recognition and customer payment, these contracts result in deferred revenue, which we present as contract liabilities, in the Consolidated Balance Sheets.

Test: Within the Test segment, approximately 25% of revenues (approximately 7% of consolidated revenues) are recognized at a point in time when products such as, antennas and probes are shipped (when control of the goods transfers) to unaffiliated customers. The related contracts are with commercial customers. The contracts may contain multiple products which are capable of being distinct because the customer could benefit from each product on its own or together with other readily available resources. Each product is separately identifiable from the other products in the contract. Therefore, each product is distinct in the context of the contract and will be accounted for as a separate performance obligation. The transaction price for these contracts reflects our estimate of variable consideration in the form of returns, rebates and discounts, which are based on historical, current and forecasted information to determine the expected amount to which we will be entitled in exchange for transferring the promised goods or services to the customer. The realization of variable consideration occurs within a short period of time from product delivery; therefore, the time value of money effect is not significant. Amounts billed to customers for shipping and handling are included in the transaction price as the related activities are performed prior to customer obtaining control of the products. They generally are not treated as separate performance obligations as these costs fulfill a promise to transfer the product to the customer and are expensed in selling, general, and other costs in the period they are incurred. Taxes collected from customers and remitted to government authorities are recorded on a net basis. We primarily provide standard warranty programs for products in our commercial businesses for periods that typically range from one to two years. These assurance-type programs typically cannot be purchased separately and do not meet the criteria to be considered a performance obligation.

Approximately 75% of the segment's revenues (approximately 20% of consolidated revenues) are recorded over time as the product does not have an alternative use and we have an enforceable right to payment for costs incurred plus a reasonable margin. Products accounted for under this guidance include the construction and installation of test chambers to a buyer's specifications that provide its customers with the ability to measure and contain magnetic, electromagnetic and acoustic energy. The goods and services related to each installed test chamber are not distinct due to the significant amount of integration provided and each installed chamber is accounted for as a single performance obligation. Selecting the method to measure progress towards completion for these contracts requires judgment and is based on the nature of the products and service to be provided. We use milestones to measure progress for our Test segment contracts because it best depicts the transfer of control to the customer that occurs as we incur costs on our contracts. For arrangements that are accounted for under this guidance, we estimate profit as the difference between total revenue and total estimated cost of a contract and recognize these revenues and costs based primarily on contract milestones. The transaction price for our contracts is typically fixed price and represents our best estimate of the consideration we will receive.

We estimate total contract cost utilizing current contract specifications and expected engineering requirements. Contract costs typically are incurred over a period of several months to a year, and the estimation of these costs requires judgment. Our cost estimation process is based on the professional knowledge and experience of engineers and program managers along with finance professionals. We review and update our projections of costs quarterly or more frequently when circumstances significantly change.

Under the typical payment terms of our fixed price contracts, the customer pays us either based on progress or based on a fixed billing schedule within the contract. Performance-based payments represent interim payments based on noted progress points as the work progresses. Because of the timing difference of revenue recognition and customer billing, these contracts result in revenue recognized in excess of billings and billings in excess of revenue recognized, which we present as contract assets and contract liabilities, respectively, in the Consolidated Balance Sheets. Amounts billed and due from our customers are classified in Accounts receivable, net.

For contracts where revenue is recognized over time, we generally recognize changes in estimated contract revenues, costs and profits using the cumulative catch-up method of accounting. This method recognizes the cumulative effect of changes on current and prior periods with the impact of the change from inception-to-date recorded in the current period. We have net revenue recognized in the current year from performance obligations satisfied in the prior year due to changes in our estimated costs to complete the related performance obligations. We recognize anticipated losses on contracts in full in the period in which the losses become probable and estimable.

Contract Assets and Liabilities

Contract assets arise from contracts when revenue is recognized over time and the amount of revenue recognized, including our estimate of variable consideration that has been included in the transaction price, exceeds the amount billed to the customer. These amounts are included in contract assets until the right to payment is no longer conditional on events other than the passage of time. These contract assets are reclassified to receivables when the right to consideration becomes unconditional. Contract liabilities include deposits, deferred revenue, upfront payments and billings in excess of revenue recognized. We include liabilities for customer rebates and discounts in other current liabilities in the Consolidated Balance Sheets.

See the further discussion of our revenue recognition in Note 15 below.

F. Cash and Cash Equivalents

Cash equivalents include temporary investments that are readily convertible into cash, such as money market funds, with original maturities of three months or less.

G. Accounts Receivable

We reduce accounts receivable by an allowance for amounts that we estimate are uncollectible in the future. This estimated allowance is based on Management's evaluation of the financial condition of the customer and historical write-off experience.

H. Inventories

We value inventories at the lower of cost (first-in, first-out) or net realizable value. We regularly review inventories for excess quantities and obsolescence based upon historical experience, specific identification of discontinued items, future demand, and market conditions. Inventories under long-term contracts reflect accumulated production costs, factory overhead, initial tooling and other related costs less the portion of such costs charged to cost of sales.

I. Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation and amortization are computed primarily on a straight-line basis over the estimated useful lives of the assets: buildings, 10-40 years; machinery and equipment, 3-10 years; and office furniture and equipment, 3-10 years. Leasehold improvements are amortized over the remaining term of the applicable lease or their estimated useful lives, whichever is shorter. Long-lived tangible assets are reviewed for impairment whenever events or changes in business circumstances indicate the carrying value of the assets may not be recoverable. Impairment losses are recognized based on fair value.

J. Leases

Our lease agreements primarily relate to office space, manufacturing facilities, and machinery and equipment. We determine at lease inception whether an arrangement that provides control over the use of an asset is a lease. We recognize at lease commencement a right-of-use (ROU) asset and lease liability based on the present value of the future lease payments over the lease term. We have elected not to recognize a ROU asset and lease liability for leases with terms of 12 months or less. Certain of our leases include options to extend the term of the lease for up to 20 years. When it is reasonably certain that we will exercise the option, Management includes the impact of the option in the lease term for purposes of determining total future lease payments. As most of our lease agreements do not explicitly state the discount rate implicit in the lease, Management uses our incremental borrowing rate on the commencement date to calculate the present value of future payments based on the tenor of each arrangement.

K. Goodwill and Other Long-Lived Intangible Assets

Goodwill represents the excess of purchase price over the fair value of net identifiable assets acquired in business acquisitions. Management annually reviews goodwill and other long-lived assets with indefinite useful lives for impairment or whenever events or changes in circumstances indicate the carrying amount may be less than fair value. If we determine that the carrying value of the long-lived asset or reporting unit is less than fair value, we record a permanent impairment charge for the amount by which the carrying value of the long-lived asset exceeds its fair value. We measure the fair value of our reporting units based on a discounted cash flow method using a discount rate determined by Management to be commensurate with the risk inherent in each of our reporting units' current business models. We determine the fair value of trade names using a generally accepted valuation method based on an income

approach called the relief from royalty method. During 2022, Management performed a quantitative impairment analysis, which included a detailed calculation of the fair value of our trade names and reporting units related to certain reporting units within these segments. A Step 0 analysis was performed on the other reporting units for which a quantitative analysis was not performed. The results of these impairment analyses indicated that the fair values of the trade names and reporting units are not less than their carrying values. Our estimates of discounted cash flows to derive the fair value were measured in accordance with ASC 350, *Intangibles – Goodwill and Other*. We are using estimates of discounted cash flows that may change, and if they change negatively it could result in the need to write down those assets to fair value.

Other intangible assets represent costs allocated to identifiable intangible assets, principally customer relationships, capitalized software, patents, trademarks, and technology rights. We amortize intangible assets with estimable useful lives over their respective estimated useful lives to their estimated residual values, and review them for impairment whenever events or changes in business circumstances indicate the carrying value of the assets may not be recoverable.

See Note 4 regarding goodwill and other intangible assets activity.

L. Capitalized Software

Costs incurred for the development of computer software that will be sold, leased, or otherwise marketed are charged to research and development expense when incurred, until technological feasibility has been established for the product. Technological feasibility is typically established upon completion of a detailed program design. Costs incurred after this point are capitalized on a project-by-project basis. Capitalized costs consist of internal and external development costs. Upon general release of the product to customers, we cease capitalization and begin amortization, which is calculated on a project-by-project basis as the greater of (1) the ratio of current gross revenues for a product to the total of current and anticipated future gross revenues for the product or (2) the straight-line method over the estimated economic life of the product. We generally amortize software development costs over a three-to-seven year period based upon the estimated future economic life of the product. Factors we consider in determining the estimated future economic life of the product include anticipated future revenues, and changes in software and hardware technologies. Management annually reviews the carrying values of capitalized costs for impairment or whenever events or changes in circumstances indicate the carrying amount may not be recoverable. If expected cash flows are insufficient to recover the carrying amount of the asset, then we recognize an impairment loss to state the asset at its net realizable value.

M. Income Taxes

We account for income taxes under the asset and liability method. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. We measure deferred tax assets and liabilities using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. We may reduce deferred tax assets by a valuation allowance if it is more likely than not that some portion or all of the deferred tax assets will not be realized. We recognize the effect on deferred tax assets and liabilities of a change in tax rates in income in the period that includes the enactment date. We regularly review our deferred tax assets for recoverability and establish a valuation allowance when Management believes it is more likely than not such assets will not be recovered, taking into consideration historical operating results, expectations of future earnings, tax planning strategies, and the expected timing of the reversals of existing temporary differences. Our policy is to include interest related to unrecognized tax benefits in income tax expense and penalties in operating expense.

N. Research and Development Costs

Company-sponsored research and development costs include research and development and bid and proposal efforts related to our products and services. We charge Company-sponsored product development costs to expense when incurred. Customer-sponsored research and development costs refer to certain situations whereby customers provide funding to support specific contractually defined research and development costs. We account for customer-sponsored research and development costs incurred pursuant to contracts similarly to other program costs. Total Company and customer-sponsored research and development expenses were approximately \$12.3 million, \$15.4 million and \$13.3 million for 2022, 2021 and 2020, respectively.

O. Foreign Currency Translation

We translate the financial statements of our foreign operations into U.S. dollars in accordance with FASB ASC Topic 830, *Foreign Currency Matters*. We record the resulting translation adjustments as a separate component of accumulated other comprehensive income.

P. Earnings Per Share

We calculate basic earnings per share using the weighted average number of common shares outstanding during the period. We calculate diluted earnings per share using the weighted average number of common shares outstanding during the period plus shares issuable upon the assumed exercise of dilutive vesting of unvested restricted units (restricted shares) using the treasury stock method. There are no anti-dilutive shares.

The number of shares used in the calculation of earnings per share for each year presented is as follows:

(in thousands)	2022	2021	2020
Weighted Average Shares Outstanding — Basic	25,933	26,046	26,010
Dilutive Restricted Shares	134	179	125
Shares — Diluted	26,067	26,225	26,135

Q. Share-Based Compensation

We provide compensation benefits to certain key employees under several share-based plans providing for performance-accelerated, performance-based and/or time-vested restricted stock unit awards, and to non-employee directors under a separate compensation plan for non-employee directors. We measure share-based payment expense at the grant date based on the fair value of the award and recognize it on a straight-line basis over the requisite service period (generally the vesting period of the award) and/or if the performance criteria are deemed probable.

R. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss of \$(31.8) million at September 30, 2022 consisted primarily of currency translation adjustments.

S. Fair Value Measurements

Fair value is defined as the price at which an asset could be exchanged in a current transaction between knowledgeable, willing parties or the amount that would be paid to transfer a liability to a new obligor, not the amount that would be paid to settle the liability with the creditor. Where available, we base fair value on observable market prices or parameters or derived from such prices or parameters. Where observable prices or inputs are not available, we apply valuation models. These valuation techniques involve some level of Management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

The accounting guidance establishes a three-level hierarchy for disclosure of fair value measurements, based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date, as follows:

Level 1 – Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 – Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

Financial Assets and Liabilities

We have estimated the fair value of our financial instruments as of September 30, 2022 using available market information or other appropriate valuation methodologies. The carrying amounts of cash and cash equivalents, receivables, payables and other current assets and liabilities approximate fair value because of the short maturity of those instruments. The carrying amounts due under the revolving credit facility approximate fair value as the interest on outstanding borrowings is calculated at a spread over the London Interbank Offered Rate (LIBOR) or based on the prime rate, at our election.

Nonfinancial Assets and Liabilities

Our nonfinancial assets such as property, plant and equipment, inventories, and other intangible assets are not measured at fair value on a recurring basis; however they are subject to fair value adjustments in certain circumstances, such as when there is evidence that an impairment may exist. No impairments were recorded during 2022.

2. Acquisitions

2022

On November 4, 2021, we acquired Networks Electronic Company, LLC (NEco) for a purchase price of approximately \$15.4 million, net of cash acquired. NEco, based in Chatsworth, California, provides miniature electro-explosive devices utilized in mission-critical defense and aerospace applications. Since the date of acquisition, the operating results for the NEco business have been included as part of PTI in the A&D segment. The acquisition date fair value of the assets acquired and liabilities assumed primarily were as follows: approximately \$0.6 million of accounts receivable, \$1.5 million of inventory, \$0.2 million of property, plant and equipment, \$0.7 million of accounts payable and accrued expenses, \$8.1 million of identifiable intangible assets, mainly consisting of customer relationships totaling \$6.3 million. The acquired goodwill of \$5.7 million related to excess value associated with opportunities to expand the services and products that the Company can offer to its customers. We anticipate that the goodwill will be deductible for tax purposes.

2021

On August 9, 2021 we acquired the assets of Phenix Technologies, Inc. (Phenix), for a purchase price of approximately \$47.2 million in cash. Phenix, based in Accident, Maryland, is a leading designer and manufacturer of high voltage, high current, high power test systems and components and solutions supporting the electric utility industry, high voltage test laboratories, and field service organizations worldwide. Since the date of acquisition, the operating results for the Phenix business have been included as part of the USG segment. The acquisition date fair value of the assets acquired and liabilities assumed were as follows: approximately \$2.6 million of accounts receivable, \$5.8 million of inventory, \$8.0 million of property, plant and equipment, \$6.2 million of accounts payable and accrued expenses, \$3.7 million for tradenames, \$9.6 million of customer relationships and \$0.5 million of miscellaneous items. The tradename was determined to have an indefinite useful life and the customer relationships were determined to have a useful life of 13 years. The acquired goodwill of \$18.7 million relates to excess value associated with opportunities to expand the services and products that the Company can offer to its customers, with approximately \$15 million of goodwill deductible for tax purposes. During the fourth quarter of 2022, the Company received \$4.6 million upon finalization of the working capital adjustment.

On July 29, 2021 we acquired I.S.A. – Altanova Group S.r.l., (Altanova), headquartered in Taino, Italy, for a purchase price of approximately \$115 million, net of cash acquired. Altanova is a supplier of diagnostic products, monitoring systems and services related to power generation, transmission and distribution networks, renewable energy and storage, and process industries to customers in more than 100 countries. Since the date of acquisition, the operating results for the Altanova business have been included as part of the USG segment. The acquisition date fair value of the assets acquired and liabilities assumed were as follows: \$9.7 million of accounts receivable, \$5.6 million of inventory, \$1.2 million of property, plant and equipment, \$9.0 million of other assets, \$12.8 million of accounts payable and accrued expenses, \$6.9 million of other liabilities, \$16.7 million of deferred tax liabilities, \$50.5 million of customer relationships and \$4.3 million of tradenames. The tradename was determined to have a useful life of ten years and the customer relationships were determined to have a useful life of twenty years. The acquired goodwill of \$71.1 million relates to the excess value associated with opportunities to expand the services and products that the Company can offer to its customers, access to new markets, and synergies anticipated by combining Altanova with existing USG businesses. The goodwill is not deductible for tax purposes.

We accounted for these acquisitions using the purchase method of accounting, and accordingly, we allocated the respective purchase prices to the assets (including intangible assets) acquired and liabilities assumed based on estimated fair values at the date of acquisition. We have included the financial results from these acquisitions in our financial statements from the date of acquisition.

3. Technical Packaging Divestiture

In December 2019, we completed the sale of our Technical Packaging business segment, consisting of our wholly-owned subsidiaries Thermoform Engineered Quality LLC, Plastique Ltd. and Plastique sp. z o.o. (the “Technical Packaging Business”), to Sonoco Plastics, Inc. and Sonoco Holdings, Inc. (“Buyers”), two wholly-owned subsidiaries of Sonoco Products Company (NYSE:SON). The companies within this segment provide innovative solutions to the medical and commercial markets for thermoformed packages and specialty products using a wide variety of thin gauge plastics and pulp. Results of operations, financial position and cash flows for the Technical Packaging business are reflected as discontinued operations in the Consolidated Financial Statements and related notes for all periods presented.

Net sales and pretax (loss) from the Technical Packaging business were \$16.5 million and \$(0.3) million, respectively, in 2020. We received net proceeds from the sale of approximately \$184 million and recorded \$76.5 million after-tax net earnings on the sale in 2020. We finalized a contractual working capital adjustment and paid \$0.2 million to the buyer during the third quarter of 2020.

4. Goodwill and Other Intangible Assets

Included on the Consolidated Balance Sheets at September 30, 2022 and 2021 are the following intangible assets gross carrying amounts and accumulated amortization:

(Dollars in thousands)	<u>2022</u>	<u>2021</u>
Goodwill	<u>\$ 492,709</u>	<u>504,853</u>
Intangible assets with determinable lives:		
Patents		
Gross carrying amount	\$ 2,353	2,131
Less: accumulated amortization	<u>1,091</u>	<u>972</u>
Net	<u>\$ 1,262</u>	<u>1,159</u>
Capitalized software		
Gross carrying amount	\$ 106,583	93,671
Less: accumulated amortization	<u>70,476</u>	<u>63,740</u>
Net	<u>\$ 36,107</u>	<u>29,931</u>
Customer Relationships		
Gross carrying amount	\$ 287,447	288,530
Less: accumulated amortization	<u>96,921</u>	<u>80,882</u>
Net	<u>\$ 190,526</u>	<u>207,648</u>
Other		
Gross carrying amount	\$ 13,985	13,177
Less: accumulated amortization	<u>7,440</u>	<u>4,398</u>
Net	<u>\$ 6,545</u>	<u>8,779</u>
Intangible assets with indefinite lives:		
Trade names	<u>\$ 160,024</u>	<u>161,733</u>

We performed our annual evaluation of goodwill and intangible assets for impairment during the fourth quarter of 2022 and concluded that no impairment existed at September 30, 2022. There were no accumulated impairment losses as of September 30, 2022.

The changes in the carrying amount of goodwill attributable to each business segment for 2022 and 2021 are as follows:

(Dollars in millions)	A&D	Test	USG	Total
Balance as of September 30, 2020	\$ 102.1	34.1	271.9	408.1
Acquisition activity	2.2	–	95.2	97.4
Foreign currency translation and other	–	–	(0.6)	(0.6)
Balance as of September 30, 2021	\$ 104.3	34.1	366.5	504.9
Acquisition activity	5.7	–	(4.7)	1.0
Foreign currency translation and other	–	(0.1)	(13.1)	(13.2)
Balance as of September 30, 2022	<u>\$ 110.0</u>	<u>34.0</u>	<u>348.7</u>	<u>492.7</u>

Amortization expense related to intangible assets with determinable lives was \$25.9 million, \$20.8 million and \$21.8 million in 2022, 2021 and 2020, respectively. Patents are amortized over the life of the patents, generally ten to twenty years. Capitalized software is amortized over the estimated useful life of the software, generally three to seven years. Customer relationships are generally amortized over thirteen to twenty years. Intangible asset amortization for fiscal years 2023 through 2027 is estimated at \$18.5 million in 2023, and approximately \$17 million in years 2024 through 2027.

5. Accounts Receivable

Accounts receivable, net of the allowance for credit losses, consisted of the following at September 30, 2022 and 2021:

(Dollars in thousands)	2022	2021
Commercial	\$ 151,565	128,952
U.S. Government and prime contractors	13,080	17,389
Total	<u>\$ 164,645</u>	<u>146,341</u>

6. Inventories, Net

Inventories, net, from continuing operations consisted of the following at September 30, 2022 and 2021:

(Dollars in thousands)	2022	2021
Finished goods	\$ 32,471	32,998
Work in process	38,492	34,201
Raw materials	91,440	79,949
Total	<u>\$ 162,403</u>	<u>147,148</u>

7. Income Tax Expense

We allocated total income tax expense for the years ended September 30, 2022, 2021 and 2020 to income tax expense as follows:

(Dollars in thousands)	2022	2021	2020
Income tax expense from continuing operations	\$ 24,115	17,175	13,510
Income tax expense from discontinued operations	–	–	23,501
Total income tax expense (benefit)	<u>\$ 24,115</u>	<u>17,175</u>	<u>37,011</u>

The components of income from continuing operations before income taxes for 2022, 2021 and 2020 consisted of the following:

(Dollars in thousands)	2022	2021	2020
United States	\$ 90,674	70,214	23,951
Foreign	15,761	10,457	12,455
Total income before income taxes	<u>\$ 106,435</u>	<u>80,671</u>	<u>36,406</u>

The principal components of income tax expense (benefit) from continuing operations for 2022, 2021 and 2020 consist of:

(Dollars in thousands)	2022	2021	2020
Federal:			
Current	\$ 7,248	14,807	10,495
Deferred	9,752	(1,598)	1,311
State and local:			
Current	1,635	2,257	1,984
Deferred	1,774	(786)	(932)
Foreign:			
Current	4,645	2,922	2,875
Deferred	(939)	(427)	(2,223)
Total	<u>\$ 24,115</u>	<u>17,175</u>	<u>13,510</u>

The actual income tax expense from continuing operations for 2022, 2021 and 2020 differs from the expected tax expense for those years (computed by applying the U.S. Federal corporate statutory rate) as follows:

	2022	2021	2020
Federal corporate statutory rate	21.0%	21.0%	21.0%
State and local, net of Federal benefits	2.9	1.9	2.3
Impact of foreign operations	(0.3)	(0.4)	1.3
Federal research credit	(0.3)	(0.9)	(3.7)
Executive compensation	0.5	0.9	1.6
Valuation allowance	(0.3)	-	(6.8)
U.S. tax on GILTI	1.8	1.0	3.2
GILTI foreign tax credits	(1.5)	(0.6)	(2.7)
FDII deduction	(0.9)	(1.7)	(2.6)
Pension plan termination charge	-	-	23.4
Other, net	(0.2)	0.1	0.1
Effective income tax rate	<u>22.7%</u>	<u>21.3%</u>	<u>37.1%</u>

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities at September 30, 2022 and 2021 are presented below:

(Dollars in thousands)	2022	2021
Deferred tax assets:		
Inventories	\$ 4,990	4,267
Pension and other postretirement benefits	664	859
Timing differences related to revenue recognition	61	9,365
Lease liabilities	7,073	7,614
Net operating and capital loss carryforwards — domestic	575	542
Net operating loss carryforward — foreign	3,396	4,279
Other compensation-related costs and other cost accruals	9,032	8,174
State credit carryforward	1,676	2,639
Foreign credit carryforward	203	192
Total deferred tax assets	<u>27,670</u>	<u>37,931</u>
Deferred tax liabilities:		
ROU assets	(7,073)	(7,614)
Goodwill	(11,691)	(13,746)
Acquisition intangible assets	(62,051)	(62,052)
Depreciation, software amortization	(24,503)	(22,418)
Net deferred tax liabilities before valuation allowance	<u>(77,648)</u>	<u>(67,899)</u>
Less valuation allowance	(1,208)	(2,011)
Net deferred tax liabilities	<u>\$ (78,856)</u>	<u>(69,910)</u>

We had a foreign net operating loss (NOL) carryforward of \$12.1 million at September 30, 2022, which reflects tax loss carryforwards in Germany, South Africa, Canada, Japan and the United Kingdom. Approximately \$10.4 million of the tax loss carryforwards have no expiration date while the remaining \$1.7 million will expire between 2031 and 2041. We had net foreign credit carryforwards of \$0.2 million, that will expire between 2041 and 2042. We had deferred tax assets related to state NOL carryforwards of \$0.6 million at September 30, 2022 which expire between 2025 and 2042. We also had net state research and other credit carryforwards of \$1.7 million of which \$0.9 million expires between 2024 and 2037. The remaining \$0.8 million does not have an expiration date.

The valuation allowance for deferred tax assets as of September 30, 2022 and 2021 was \$1.2 million and \$2.0 million, respectively. The net change in the total valuation allowance for each of the years ended September 30, 2022 and 2021 was a decrease of \$0.8 million and an increase of \$0.1 million, respectively. We established a valuation allowance against state credit carryforwards of \$0.6 million at September 30, 2021. This balance was released as of September 30, 2022. In addition, we maintained a valuation allowance against state NOL carryforwards that are not expected to be realized in future periods of \$0.5 million at September 30 of both 2022 and 2021. Lastly, we established a valuation allowance against certain NOL carryforwards in foreign jurisdictions which may not be realized in future periods of \$0.7 million and \$0.9 million at September 30, 2022 and 2021, respectively.

As of September 30, 2022, the Company does not have any material unrecognized tax benefits.

8. Debt

Debt consists of the following at September 30, 2022 and 2021:

(Dollars in thousands)	<u>2022</u>	<u>2021</u>
Total borrowings	\$ 153,000	154,000
Current portion of long-term debt and short-term borrowings	(20,000)	(20,000)
Total long-term debt, less current portion	<u>\$ 133,000</u>	<u>134,000</u>

The Credit Facility includes a \$500 million revolving line of credit as well as provisions allowing for an increase of the credit facility commitment amount by an additional \$250 million, if necessary, with the consent of the lenders. The bank syndication supporting the facility is comprised of a diverse group of eight banks led by JP Morgan Chase Bank, N.A., as Administrative Agent. The Credit Facility matures September 27, 2024, with balance due by this date.

Interest on borrowings under the Credit Facility is calculated at a spread over either the New York Federal Reserve Bank Rate, the prime rate, or the London Interbank Offered Rate (LIBOR), depending on various factors. The Credit Facility also requires a facility fee ranging from 10 to 25 basis points per annum on the unused portion. The interest rate spreads and the facility fee are subject to increase or decrease depending on the Company's leverage ratio.

The Credit Facility is secured by the unlimited guaranty of our direct and indirect material U.S. subsidiaries and the pledge of 100% of the equity interests of our direct and indirect material foreign subsidiaries. The financial covenants of the Credit Facility include a leverage ratio and an interest coverage ratio. As of September 30, 2022, we were in compliance with all covenants.

At September 30, 2022, we had approximately \$339 million available to borrow under the Credit Facility, plus the \$250 million increase option subject to the lenders' consent, in addition to \$97.7 million cash on hand. We classified \$20 million as the current portion of long-term debt as of September 30, 2022, as we intend to repay this amount within the next twelve months; however, we have no contractual obligation to repay such amount during the next twelve months.

During 2022 and 2021, our maximum aggregate short-term borrowings at any month-end were \$208 million and \$174 million, respectively, and the average aggregate short-term borrowings outstanding based on month-end balances were \$189.8 million and \$71.3 million, respectively. The weighted average interest rates were 2.11% and 1.20% for 2022 and 2021, respectively. As of September 30, 2022, the interest rate on our debt was 4.12%. The letters of credit issued and outstanding under the Credit Facility totaled \$8.0 million and \$8.5 million at September 30, 2022 and 2021, respectively.

9. Capital Stock

The 30,707,748 and 30,666,173 common shares as presented in the accompanying Consolidated Balance Sheets at September 30, 2022 and 2021 represent the actual number of shares issued at the respective dates. We held 4,854,997 and 4,604,741 common shares in treasury at September 30, 2022 and 2021, respectively.

In August 2021, our Board of Directors approved a new common stock repurchase program authorizing us to repurchase shares of our stock from time to time in Management's discretion, in the open market or otherwise, up to a maximum total repurchase amount of \$200 million (or the maximum amount permitted under our bank credit agreements, if less). This program is scheduled to expire September 30, 2024. We repurchased approximately 257,500 shares under this program in 2022 at an aggregate cost of \$20.0 million. We did not repurchase any shares in 2021 or 2020.

10. Share-Based Compensation

We provide compensation benefits to certain key employees under several share-based plans providing for performance-accelerated and/or time-vested restricted stock unit awards, and to non-employee directors under a separate compensation plan for non-employee directors. As of September 30, 2022, our equity compensation plans had a total of 580,437 shares authorized and available for future issuance.

Performance-Accelerated Restricted Stock Unit (PARS) Awards, Time-Vested Restricted Stock Unit (RSU) Awards, and Performance Share Unit (PSU) Awards

A PARS award represents the right to receive a specified number of shares of Company common stock if and when the award vests. A PARS award is not stock and does not give the recipient any rights as a shareholder until it vests and is paid out in shares of stock. PARS awards currently outstanding have a five-year vesting period, with accelerated vesting if certain targets based on market conditions are achieved. In these cases, if it is probable that the performance condition will be met, the Company recognizes compensation cost on a straight-line basis over the shorter performance period; otherwise, it will recognize compensation cost over the longer service period. Compensation cost for the outstanding PARS awards is being recognized over the shorter performance period, as it is probable the performance condition will be met. The PARS award grants were valued at the stock price on the date of grant.

The terms of the RSU awards are similar to those of the PARS awards, but without any provision for acceleration of the vesting date. Each RSU represents the right to receive one share of Company common stock if the recipient remains continuously employed by the Company until the award vests, in this case 3 ½ years after the effective award date. The RSU award grants were valued at the stock price on the date of grant.

Beginning in fiscal year 2022, the Company granted PSU awards with a three-year vesting period, with each PSU representing the right to receive one share of Company common stock if certain performance targets are achieved. The targets are based on achieving certain EBITDA metrics and a Total Shareholder return (rTSR) metric over a three-year period.

Pretax compensation expense related to the above awards for continuing operations was \$6.1 million, \$5.6 million and \$4.3 million for 2022, 2021 and 2020, respectively.

The following summary presents information regarding outstanding share-based compensation awards as of the specified dates, and changes during the specified periods:

	FY 2022		FY 2021		FY 2020	
	Shares	Estimated Weighted Avg. Price	Shares	Estimated Weighted Avg. Price	Shares	Estimated Weighted Avg. Price
Nonvested at October 1,	226,705	\$ 76.15	220,300	\$ 66.55	281,004	\$ 59.72
Granted	117,045	82.54	51,476	108.05	45,723	74.80
Vested	(75,327)	56.87	(35,753)	64.40	(89,822)	50.51
Cancelled	(3,056)	89.51	(9,318)	70.50	(16,605)	60.48
Nonvested at September 30,	<u>265,367</u>	<u>\$ 84.29</u>	<u>226,705</u>	<u>\$ 76.15</u>	<u>220,300</u>	<u>\$ 66.55</u>

Compensation Plan for Non-Employee Directors

In addition to an annual cash retainer, we provide each non-employee director with an annual equity award having a grant date market value of \$180,000, based on the NYSE closing price of the Company's stock on the date of grant. For calendar years prior to 2021, the award consisted of actual shares of Company stock, but beginning in January 2021, the award has been in the form of Restricted Stock Units, each of which represents the right to receive one share of Company stock at the end of a one-year vesting period. At the end of the vesting period, each award will be converted into the right to receive the same number of actual shares of common stock, plus additional shares representing the value of the quarterly dividends which would have accrued on the underlying shares during the vesting period. Compensation expense related to the non-employee director grants was \$1.2 million, \$1.3 million and \$1.3 million for 2022, 2021 and 2020, respectively.

Total Share-Based Compensation

The total share-based compensation cost that has been recognized in results of operations and included within SG&A from continuing operations was \$7.3 million, \$6.9 million and \$5.6 million for 2022, 2021 and 2020, respectively. The total income tax benefit recognized in results of operations for share-based compensation arrangements was \$1.5 million, \$1.4 million and \$1.2 million for 2022, 2021 and 2020, respectively. As of September 30, 2022, there was \$11.2 million of total unrecognized compensation cost related to share-based compensation arrangements. That cost is expected to be recognized over a weighted-average period of 1.7 years.

11. Retirement and Other Benefit Plans

On November 14, 2019, our Board of Directors approved a resolution to terminate the Company's defined benefit pension plan (the Plan) effective as of February 29, 2020. In connection with the termination, we contributed \$25.7 million of cash to the Plan during 2020, settled approximately \$32.4 million of Plan liabilities during 2020 through lump-sum payments from existing plan assets to eligible participants who elected to receive them, and recorded approximately \$40.6 million of charges associated with these settlements. During 2020, we settled approximately \$69.1 million of Plan liabilities by entering into an agreement to purchase annuities from a third-party insurance company. This agreement covered active and former employees and their beneficiaries, with the insurance company assuming the future annuity payments for these individuals.

Substantially all our domestic employees are covered by a defined contribution plan maintained by the Company. In addition, we offer unfunded post-retirement pre-Medicare health insurance benefits to a small number of eligible retirees and employees. We formerly provided unfunded post-retirement life insurance to qualifying retired employees who retired before 2005, but ceased providing this coverage on July 31, 2020. There was no financial impact of this plan in 2022.

12. Business Segment Information

We are organized based on the products and services we offer, and we classify our continuing business operations in three reportable segments for financial reporting purposes: Aerospace & Defense (A&D), Utility Solutions Group (USG) and RF Shielding and Test (Test). In addition, for reporting certain financial information we treat Corporate activities as a separate segment. The former Technical Packaging segment was divested in December 2019 and is reflected as discontinued operations for 2020.

The A&D segment's operations consist of PTI Technologies Inc. (PTI), VACCO Industries (VACCO), Crissair, Inc. (Crissair), Mayday Manufacturing Co. (Mayday), Westland Technologies, Inc. (Westland), Globe Composite Solutions, LLC (Globe) and Networks Electronic Company, LLC (NEco). The companies within this segment primarily design and manufacture specialty filtration, fluid control and naval products, including hydraulic filter elements and fluid control devices used in aerospace and defense applications, unique filter mechanisms used in micro-propulsion devices for satellites, custom designed filters for manned aircraft and submarines, products and systems to reduce vibration and/or acoustic signatures and otherwise reduce or obscure a vessel's signature, and other communications, sealing, surface control and hydrodynamic related applications to enhance U.S. Navy maritime survivability; precision-tolerance machined components for the aerospace and defense industry; metal processing services; and miniature electro-explosive devices utilized in mission-critical defense and aerospace applications.

The USG segment's operations consist of Doble Engineering Company and related subsidiaries including Morgan Schaffer and Altanova (collectively, Doble), and NRG Systems, Inc. (NRG). Doble is an industry leader in the development, manufacture and delivery of diagnostic testing and data management solutions that enable electric

power grid operators to assess the integrity of high-voltage power delivery equipment. It combines three core elements for customers – diagnostic test and condition monitoring instruments, expert consulting, and testing services – and provides access to its large reserve of related empirical knowledge. NRG is a global market leader in the design and manufacture of decision support tools for the renewable energy industry, primarily wind and solar. The recent acquisition of Altanova not only complements our existing products and services but its strong market share in Europe and Asia provides a significant international platform for our USG segment.

The Test segment’s operations consist of ETS-Lindgren Inc. and related subsidiaries (ETS-Lindgren). ETS-Lindgren is an industry leader in designing and manufacturing products which provide its customers with the ability to identify, measure and contain magnetic, electromagnetic and acoustic energy. It supplies its customers with a broad range of isolated environments and turnkey systems, including RF test facilities, acoustic test enclosures, RF and magnetically shielded rooms, secure communication facilities, RF measurement systems and broadcast and recording studios. Many of these facilities include proprietary features such as shielded doors and windows. ETS-Lindgren also provides the design, program management, installation and integration services required to successfully complete these types of facilities. ETS-Lindgren also supplies customers with a broad range of components including RF absorptive materials, RF filters, active compensation systems, antennas, antenna masts, turntables and electric and magnetic probes, RF test cells, proprietary measurement software and other test accessories required to perform a variety of tests. ETS-Lindgren offers a variety of services including calibration for antennas and field probes, chamber certification, field surveys, customer training and a variety of product tests. ETS-Lindgren serves the acoustics, medical, health and safety, electronics, wireless communications, automotive and defense markets.

Accounting policies of the segments are the same as those described in the summary of significant accounting policies in Note 1 to the Consolidated Financial Statements. The operating units within each reporting segment have been aggregated because of similar economic characteristics and meet the other aggregation criteria of FASB ASC 280.

We evaluate the performance of our operating units based on EBIT, which is defined as earnings before interest and taxes. EBIT on a consolidated basis is a non-GAAP financial measure. Intersegment sales and transfers are not significant. Segment assets consist primarily of customer receivables, inventories, capitalized software and fixed assets directly associated with the production processes of the segment. Segment depreciation and amortization is based upon the direct assets listed above. The tables below are presented on the basis of continuing operations and exclude discontinued operations.

Net Sales

(Dollars in millions)

Year ended September 30,	<u>2022</u>	<u>2021</u>	<u>2020</u>
A&D	\$ 351.4	314.8	351.9
USG	278.4	202.9	191.7
Test	227.7	197.7	186.9
Consolidated totals	<u>\$ 857.5</u>	<u>715.4</u>	<u>730.5</u>

No customer exceeded 10% of consolidated sales in 2022 or 2021 and one customer exceeded 10% of consolidated sales in 2020.

EBIT

(Dollars in millions)

Year ended September 30,	<u>2022</u>	<u>2021</u>	<u>2020</u>
A&D	\$ 68.4	56.5	69.9
USG	57.6	40.9	24.4
Test	32.6	27.6	27.2
Reconciliation to consolidated totals (Corporate)	<u>(47.3)</u>	<u>(42.1)</u>	<u>(78.4)</u>
Consolidated EBIT	111.3	82.9	43.1
Less: interest expense	<u>(4.9)</u>	<u>(2.2)</u>	<u>(6.7)</u>
Earnings before income tax	<u>\$ 106.4</u>	<u>80.7</u>	<u>36.4</u>

Identifiable Assets

(Dollars in millions)

Year ended September 30,	2022	2021
A&D	\$ 295.2	270.0
USG	220.0	197.5
Test	174.6	153.6
Corporate	964.7	956.2
Consolidated totals	\$ 1,654.5	1,577.3

Corporate consists primarily of deferred taxes, acquired intangible assets including goodwill and cash balances.

Capital Expenditures

(Dollars in millions)

Year ended September 30,	2022	2021	2020
A&D	\$ 9.4	10.4	15.9
USG	14.4	11.6	12.4
Test	8.3	4.7	3.6
Corporate	—	—	0.2
Consolidated totals	\$ 32.1	26.7	32.1

In addition to the above amounts, we incurred expenditures for capitalized software of \$12.9 million, \$8.8 million and \$9.0 million in 2022, 2021 and 2020, respectively.

Depreciation and Amortization

(Dollars in millions)

Year ended September 30,	2022	2021	2020
A&D	\$ 11.1	10.4	9.4
USG	12.6	13.5	14.4
Test	5.4	5.2	5.0
Corporate	19.2	12.9	12.5
Consolidated totals	\$ 48.3	42.0	41.3

Depreciation expense of property, plant and equipment was \$22.4 million, \$21.2 million and \$19.5 million for 2022, 2021 and 2020, respectively.

Geographic Information

Net Sales

(Dollars in millions)

Year ended September 30,	2022	2021	2020
United States	\$ 603.2	517.0	529.4
Asia	122.4	92.3	96.3
Europe	72.4	53.5	51.3
Canada	31.2	27.0	31.7
India	10.3	12.4	10.3
Other	18.0	13.2	11.5
Consolidated totals	\$ 857.5	715.4	730.5

Long-Lived Assets

(Dollars in millions)

Year ended September 30,	2022	2021
United States	\$ 141.5	141.0
Mexico	5.8	3.8
Other	8.7	9.5
Consolidated totals	\$ 156.0	154.3

We attribute net sales to countries based on the location of the customer. We attribute long-lived assets to countries based on the location of the asset.

13. Commitments and Contingencies

At September 30, 2022, we had \$8.0 million in letters of credit outstanding as guarantees of contract performance and cash amounts that exceeded federally insured amounts. As a normal incident of the businesses in which we are engaged, various claims, charges and litigation are asserted or commenced from time to time against us.

Additionally, we are currently involved in various stages of investigation and remediation relating to environmental matters. It is the opinion of Management that the aggregate costs involved in the resolution of these matters, and final judgments, if any, which might be rendered against us are adequately accrued, are covered by insurance or are not likely to have a material adverse effect on our financial results as the estimated exposure to loss is not material.

14. Leases

Effective October 1, 2019 we adopted ASC 842, *Leases*. We determine at lease inception whether an arrangement that provides control over the use of an asset is a lease. We recognize at lease commencement a right-of-use (ROU) asset and lease liability based on the present value of the future lease payments over the lease term (including anticipated renewals). We have elected not to recognize a ROU asset and lease liability for leases with terms of 12 months or less. Certain of our leases include options to extend the term of the lease for up to 20 years. When it is reasonably certain that we will exercise the option, Management includes the impact of the option in the lease term for purposes of determining total future lease payments. As most of our lease agreements do not explicitly state the discount rate implicit in the lease, Management uses our incremental borrowing rate on the commencement date to calculate the present value of future payments based on the tenor of each arrangement.

Our leases for real estate commonly include escalating payments. We include these variable lease payments in the calculation of our ROU asset and lease liability. In addition to the present value of the future lease payments, the calculation of the ROU asset also includes any deferred rent, lease pre-payments and initial direct costs of obtaining the lease.

In addition to the base rent, real estate leases typically contain provisions for common-area maintenance and other similar services, which are considered non-lease components for accounting purposes. Non-lease components are excluded from our ROU assets and lease liabilities and expensed as incurred.

Our leases are for office space, manufacturing facilities, and machinery and equipment.

The components of lease costs are shown below:

<u>(Dollars in thousands)</u>	<u>Year Ended September 30, 2022</u>	<u>Year Ended September 30, 2021</u>
Finance lease cost:		
Amortization	\$ 1,572	2,413
Interest on lease liabilities	973	1,235
Operating lease cost	<u>6,347</u>	<u>5,879</u>
Total lease cost	<u>\$ 8,892</u>	<u>9,527</u>

Additional information related to leases is shown below:

<u>(Dollars in thousands)</u>	<u>Year Ended September 30, 2022</u>	<u>Year Ended September 30, 2021</u>
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 6,101	5,504
Operating cash flows from finance leases	973	1,228
Financing cash flows from finance leases	1,224	1,757
Right-of-use assets obtained in exchange for operating lease liabilities	\$ 4,160	15,609
Weighted-average remaining lease term:		
Operating leases	9.3 yrs	10.3 yrs
Finance leases	12.0 yrs	11.7 yrs
Weighted-average discount rate:		
Operating leases	3.2 %	3.1 %
Finance leases	4.6 %	4.2 %

The table below is a reconciliation of future undiscounted cash flows to the operating and finance lease liabilities, and the related ROU assets, presented on our Consolidated Balance Sheet on September 30, 2022:

(Dollars in thousands) Years Ending September 30:	Operating Leases	Finance Leases
2023	\$ 5,953	2,256
2024	5,132	2,315
2025	3,790	2,370
2026	2,881	2,434
2027 and thereafter	17,029	18,997
Total minimum lease payments	34,785	28,372
Less: amounts representing interest	4,760	7,189
Present value of net minimum lease payments	\$ 30,025	21,183
Less: current portion of lease obligations	5,172	1,331
Non-current portion of lease obligations	24,853	19,852
ROU assets	\$ 29,150	17,343

The table below is a reconciliation of future undiscounted cash flows to the operating and finance lease liabilities, and the related ROU assets, presented on our Consolidated Balance Sheet on September 30, 2021:

(Dollars in thousands) Years Ending September 30:	Operating Leases	Finance Leases
2022	\$ 5,448	3,153
2023	4,679	3,235
2024	4,032	3,319
2025	3,654	3,399
2026 and thereafter	20,453	25,516
Total minimum lease payments	38,266	38,622
Less: amounts representing interest	5,691	9,092
Present value of net minimum lease payments	\$ 32,575	29,530
Less: current portion of lease obligations	4,543	2,180
Non-current portion of lease obligations	28,032	27,350
ROU assets	\$ 31,846	24,964

We include operating and finance lease liabilities in the Consolidated Balance Sheet in accrued other expenses (current portion) and other liabilities (long-term portion). We include operating lease ROU assets as a caption on the Consolidated Balance Sheet and include finance lease ROU assets in Property, plant and equipment on the Consolidated Balance Sheet.

15. Revenues

(a) Disaggregation of Revenues

The tables below present our revenues by customer type, geographic location, and revenue recognition method for the years ended September 30, 2022 and 2021, as we believe this presentation best depicts how the nature, amount, timing and uncertainty of net sales and cash flows are affected by economic factors. The tables also include a reconciliation of the disaggregated revenue within our reportable segments.

Year Ended September 30, 2022

<i>(In thousands)</i>	A&D	USG	Test	Total
Customer type:				
Commercial	\$ 144,305	272,432	209,016	625,753
Government	207,108	5,935	18,706	231,749
Total revenues	\$ 351,413	278,367	227,722	857,502
Geographic location:				
United States	\$ 299,158	180,586	123,428	603,172
International	52,255	97,781	104,294	254,330
Total revenues	\$ 351,413	278,367	227,722	857,502
Revenue recognition method:				
Point in time	\$ 144,039	224,502	58,522	427,063
Over time	207,374	53,865	169,200	430,439
Total revenues	\$ 351,413	278,367	227,722	857,502

Year Ended September 30, 2021

<i>(In thousands)</i>	A&D	USG	Test	Total
Customer type:				
Commercial	\$ 130,217	199,111	177,601	506,929
Government	184,607	3,797	20,107	208,511
Total revenues	\$ 314,824	202,908	197,708	715,440
Geographic location:				
United States	\$ 275,976	140,545	100,438	516,959
International	38,848	62,363	97,270	198,481
Total revenues	\$ 314,824	202,908	197,708	715,440
Revenue recognition method:				
Point in time	\$ 136,449	153,163	40,609	330,221
Over time	178,375	49,745	157,099	385,219
Total revenues	\$ 314,824	202,908	197,708	715,440

(b) Remaining Performance Obligations

Our remaining performance obligations, which is the equivalent of our backlog, represent the expected transaction price allocated to our contracts that we expect to recognize as revenue in future periods when we perform under the contracts. These remaining obligations include amounts that have been formally appropriated under contracts with the U.S. Government, and exclude unexercised contract options and potential orders under ordering-type contracts such as Indefinite Delivery, Indefinite Quantity contracts. At September 30, 2022, we had \$695.0 million in remaining performance obligations of which we expect to recognize revenues of approximately 80% in the next twelve months.

(c) Contract assets and contract liabilities

We report assets and liabilities related to our contracts with customers on a contract-by-contract basis at the end of each reporting period. At September 30, 2022, our contract assets and contract liabilities totaled \$125.2 million and \$137.6 million, respectively. At September 30, 2021, our contract assets and contract liabilities totaled \$93.8 million and \$108.8 million, respectively. During 2022, we recognized approximately \$83.8 million in revenues that were included in the contract liabilities balance at September 30, 2021.

MANAGEMENT'S STATEMENT OF FINANCIAL RESPONSIBILITY

The Company's Management is responsible for the fair presentation of the Company's financial statements in accordance with accounting principles generally accepted in the United States of America, and for their integrity and accuracy. Management is confident that its financial and business processes provide accurate information on a timely basis.

Management, with the oversight of ESCO's Board of Directors, has established and maintains a strong ethical climate in which the Company's affairs are conducted. Management also has established an effective system of internal controls that provide reasonable assurance as to the integrity and accuracy of the financial statements, and responsibility for the Company's assets. Grant Thornton LLP, the Company's independent registered public accounting firm, reports directly to the Audit and Finance Committee of the Board of Directors. The Audit and Finance Committee has established policies consistent with corporate reform laws for auditor independence. In accordance with corporate governance listing requirements of the New York Stock Exchange:

- A majority of Board members are independent of the Company and its Management.
- All members of the key Board committees – the Audit and Finance, the Human Resources and Compensation and the Nominating and Corporate Governance Committees – are independent.
- The independent members of the Board meet regularly without the presence of Management.
- The Company has a clear code of ethics and a conflict of interest policy to ensure that key corporate decisions are made by individuals who do not have a financial interest in the outcome, separate from their interest as Company officials.
- The charters of the Board committees clearly establish their respective roles and responsibilities.
- The Company has a Corporate Ethics Committee, ethics officers at each operating location and an ombudsman hot line available to all domestic employees and all foreign employees have local ethics officers and access to the Company's ombudsman.

The Company has a strong financial team, from its executive leadership to each of its individual contributors. Management monitors compliance with its financial policies and practices over critical areas including internal controls, financial accounting and reporting, accountability, and safeguarding of its corporate assets. The internal audit function maintains oversight over the key areas of the business and financial processes and controls, and reports directly to the Audit and Finance Committee. Additionally, all employees are required to adhere to the ESCO Code of Business Conduct and Ethics, which is monitored by the Corporate Ethics Committee.

Management is dedicated to ensuring that the standards of financial accounting and reporting that are established are maintained. The Company's culture demands integrity and a commitment to strong internal practices and policies.

The Consolidated Financial Statements have been audited by Grant Thornton LLP and KPMG LLP, whose reports are included herein.

November 29, 2022

/s/Victor L. Richey

Victor L. Richey
Chairman, Chief Executive Officer
and President

/s/Christopher L. Tucker

Christopher L. Tucker
Senior Vice President
and Chief Financial Officer

EXHIBITS

The following exhibits are submitted with and attached to this Form 10-K; exhibit numbers correspond to the exhibit table in Item 601 of Regulation S-K. For a complete list of exhibits including those incorporated by reference, see Item 15(a)(3) of this Form 10-K, above.

<u>Exhibit No.</u>	<u>Exhibit</u>
21	Subsidiaries of the Company
23.1	Consent of Independent Registered Public Accounting Firm (Grant Thornton LLP)
23.2	Consent of Independent Registered Public Accounting Firm (KPMG LLP)
31.1	Certification of Chief Executive Officer
31.2	Certification of Chief Financial Officer
32	* Certification of Chief Executive Officer and Chief Financial Officer
101.INS	** Inline XBRL Instance Document
101.SCH	** Inline XBRL Schema Document
101.CAL	** Inline XBRL Calculation Linkbase Document
101.LAB	** Inline XBRL Label Linkbase Document
101.PRE	** Inline XBRL Presentation Linkbase Document
101.DEF	** Inline XBRL Definition Linkbase Document
104	** Cover Page Inline Interactive Data File (contained in Exhibit 101)

* Furnished (and not filed) herewith pursuant to Item 601(b)(32)(ii) of Regulation S-K.

** Exhibits 101 and 104 to this report consist of documents formatted in XBRL (Extensible Business Reporting Language) and filed with the Securities and Exchange Commission; they are not included in printed copies of this Report.

Subsidiaries of ESCO Technologies Inc.

The following list omits certain of the Company’s subsidiaries which, if considered in the aggregate as a single subsidiary, would not, as of the end of the year covered by this Report, constitute a “significant subsidiary” as defined in SEC Regulation S-X.

<u>Name</u>	<u>State or Jurisdiction of Incorporation or Organization</u>	<u>Name(s) Under Which It Does Business</u>
Beijing Lindgren ElectronMagnetic Technology Co., Ltd.	People’s Republic of China	Same; also ETS-Lindgren
Crissair, Inc.	California	Same
Doble Engineering Company	Massachusetts	Same
Doble PowerTest Limited	United Kingdom	Same
ESCO International Holding Inc.	Delaware	Same
ESCO Technologies Holding LLC	Delaware	Same
ESCO UK Global Holdings Ltd	United Kingdom	Same
ETS-Lindgren Inc.	Illinois	Same
ETS-Lindgren OY	Finland	Same
ETS-Lindgren Technology (Tianjin) Co., Ltd.	People’s Republic of China	Same; also ETS-Lindgren
Globe Composite Solutions, LLC	Massachusetts	Same
I.S.A. – Altanova Group S.r.l.	Italy	Same; also Altanova
Mayday Manufacturing Co.	Texas	Same
Morgan Schaffer Ltd.	Quebec, Canada	Same
Networks Electronic Company, LLC	California	Same; also NEco
NRG Systems, Inc.	Vermont	Same
PTI Technologies Inc.	Delaware	Same
VACCO Industries	California	Same
Westland Technologies, Inc.	California	Same; also Westland Machine Shop

Consent of Independent Registered Public Accounting Firm (Grant Thornton LLP)

We have issued our report dated November 29, 2022 with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of ESCO Technologies Inc. on Form 10-K for the year ended September 30, 2022. We consent to the incorporation by reference of said report in the Registration Statements of ESCO Technologies Inc. on Forms S-8 (File No. 333-63930, File No. 333-223029, and File No. 333-231364).

/s/ GRANT THORNTON LLP

St. Louis, Missouri
November 29, 2022

Consent of Independent Registered Public Accounting Firm (KPMG LLP)

We consent to the incorporation by reference in the registration statements (Nos. 333-63930, 333-223029, 333-231364) on Form S-8 of our report dated November 29, 2021, with respect to the consolidated financial statements of ESCO Technologies Inc.

/s/ KPMG LLP

St. Louis, Missouri
November 29, 2022

Certification

I, Victor L. Richey, certify that:

1. I have reviewed this annual report on Form 10-K of ESCO Technologies 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 and finance 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: November 29, 2022

/s/ Victor L. Richey
Victor L. Richey
Chairman, President and Chief Executive Officer

Certification

I, Christopher L. Tucker, certify that:

1. I have reviewed this annual report on Form 10-K of ESCO Technologies 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 and finance 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: November 29, 2022

/s/ Christopher L. Tucker
Christopher L. Tucker
Senior Vice President and Chief Financial Officer

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

In connection with the annual report of ESCO Technologies Inc. (the “Company”) on Form 10-K for the period ended September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), we, Victor L. Richey, Chairman, President and Chief Executive Officer of the Company, and Christopher L. Tucker, Senior Vice President and Chief Financial Officer of the Company, certify, to the best of our knowledge, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Date: November 29, 2022

/s/ Victor L. Richey _____
Victor L. Richey
Chairman, President and Chief Executive Officer

/s/ Christopher L. Tucker _____
Christopher L. Tucker
Senior Vice President and Chief Financial Officer

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Shareholders' Summary

Shareholders' Annual Meeting

The Annual Meeting of Shareholders of ESCO Technologies Inc. will be held at Westlake Village Inn, 31943 Agoura Road, Westlake Village, CA 91361 at 8:00 a.m. Pacific Time on Friday, February 3, 2023. You may access this Annual Report as well as the Notice of the meeting and the Proxy Statement on the Company's Annual Meeting website at www.envisionreports.com/ese.

Certifications

Pursuant to New York Stock Exchange (NYSE) requirements, the Company submitted to the NYSE the annual certifications by the Company's chief executive officer dated February 7, 2022 and February 9, 2021, that he was not aware of any violations by the Company of NYSE's corporate governance listing standards. In addition, the Company filed with the Securities and Exchange Commission the certifications by the Company's chief executive officer and chief financial officer required under Section 302 of the Sarbanes-Oxley Act of 2002 as exhibits to the Company's Forms 10-K for its fiscal years ended September 30, 2022 and September 30, 2021.

10-K Report

The Company's 2022 Annual Report on Form 10-K as filed with the Securities and Exchange Commission is included in this Annual Report to Shareholders, except that certain of its Exhibits have been omitted. The complete Form 10-K is available on the Company's website at www.escotechnologies.com, or a copy will be provided to shareholders without charge upon written request to Kate Lowrey, Vice President of Investor Relations, ESCO Technologies Inc., 9900A Clayton Road, St. Louis, MO 63124.

Investor Relations

Additional investor-related information may be obtained by contacting ESCO Investor Relations at (314) 213-7277 or toll free at (888) 622-3726. Information is also available through the Company's website at www.escotechnologies.com or via e-mail to klowrey@escotechnologies.com.

Transfer Agent and Registrar

Shareholder inquiries concerning lost certificates, transfer of shares or address changes should be directed to: Computershare Shareholder Services
P.O. Box 505000
Louisville, KY 40233-5000
(800) 368-5948
www.computershare.com/investor

Capital Stock Information

ESCO Technologies Inc. common stock shares (symbol ESE) are listed on the New York Stock Exchange. There were approximately 1,808 holders of record of shares of common stock at November 7, 2022.

Independent Registered Public Accounting Firm

Grant Thornton LLP
231 South Bemiston Ave., Suite 600
St. Louis, MO 63105





ESCO Technologies Inc.
9900A Clayton Road • St. Louis, MO 63124
www.escotechnologies.com