

VEECO INSTRUMENTS INC
Form 10-K
February 24, 2015
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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2014

OR

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

Commission file number 0-16244

VEECO INSTRUMENTS INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

11-2989601

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

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Terminal Drive
Plainview, New York
(Address of Principal Executive Offices)

11803
(Zip Code)

Registrant's telephone number, including area code:

(516) 677-0200

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

(Title of each class)	(Name of each exchange on which registered)
Common Stock, par value \$0.01 per share	The NASDAQ Stock Market

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by references in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

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Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

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

The aggregate market value of the common stock held by non-affiliates of the registrant as of June 27, 2014 (the last business day of the registrant's most recently completed second quarter) was \$1,454,417,866 based on the closing price of \$36.83 on the NASDAQ Stock Market on that date.

The number of shares of each of the registrant's classes of common stock outstanding on February 17, 2015 was 40,361,759 shares of common stock, par value \$0.01 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Certain portions of the definitive Proxy Statement to be used in connection with the Registrant's 2015 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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This Annual Report on Form 10-K (Form 10-K) contains certain forward-looking information relating to Veeco Instruments Inc. (together with its consolidated subsidiaries, Veeco, the Company, Registrant, we, our, or us, unless the context indicates otherwise) that is based on the of, and assumptions made by, our management as well as information currently available to management. When used in this Form 10-K, the words believes, anticipates, expects, estimates, targets, plans, intends, will, and similar expressions relating to the future are intended to represent forward-looking information. Discussions containing such forward-looking statements may be found in Part I. Items 1, 3, 7 and 7A hereof, as well as within this Form 10-K generally. This forward-looking information reflects our current views with respect to future events and is subject to certain risks, uncertainties, and assumptions, some of which are described under the caption Risk Factors in Part I, Item 1A and elsewhere in this Form 10-K. Should one or more of these risks or uncertainties occur, or should our assumptions prove incorrect, actual results may vary materially from the forward-looking information described in this Form 10-K as believed, anticipated, expected, estimated, targeted, planned or similarly identified. We do not undertake any obligation to update any forward-looking statements to reflect future events or circumstances after the date of such statements.

PART I.

Item 1. Business

We create process equipment that enables technologies for a cleaner and more productive world. We design, manufacture, and market thin film equipment aligned with global megatrends such as energy efficiency and mobility. Our equipment is primarily sold to make electronic devices including light emitting diodes (LED s), power electronics, wireless devices, hard disk drives, and semiconductors. We may also license our technology to our customers or partners.

We develop highly differentiated, best-in-class equipment for critical performance steps in thin film processing. Our products feature leading technology, low cost-of-ownership, and high throughput. Core competencies in advanced thin film technologies, over 300 patents, and decades of specialized process know-how helps us to stay at the forefront of these rapidly advancing industries.

We were organized as a Delaware corporation in 1989.

Business Overview and Industry Trends

We are focused on:

- Providing differentiated process equipment to address customers next generation product development roadmaps;

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- Investing to win through focused research and development spending in markets that we believe provide significant growth opportunities or are at an inflection point in process equipment requirements, including LED and power semiconductor devices, or that represent next-generation technologies, such as organic light-emitting diodes (OLED);
- Leveraging our sales channel and local process applications support to build strong strategic relationships with technology leaders;
- Expanding our portfolio of service products that improve the performance of our systems, including spare parts, upgrades, and consumables to drive growth, reduce our customers' cost of ownership, and improve customer satisfaction;
- Combining outsourced and internal manufacturing strategies to flex manufacturing capacity through industry investment cycles; and
- Pursuing partnerships and acquisitions to expand our product portfolio and accelerate our growth.

Our systems, including our deposition and etch tools, are used in the creation of a broad range of microelectronic components, including LEDs, power semiconductors, thin film magnetic heads (TFMH s), and compound semiconductor devices. Our customers who manufacture these devices invest in our systems to develop their next generation products and deliver more efficient, cost effective, and advanced technological solutions. We operate in a cyclical business environment, and we are highly influenced by our customers' buying patterns that are themselves dependent upon industry trends. While our products are sold to multiple markets, the following discussion focuses on the trends that most influence our business.

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Metal Organic Chemical Vapor Deposition Systems

We are the world's leading supplier of metal organic chemical vapor deposition (MOCVD) systems. MOCVD production systems are used to make gallium nitride (GaN) based devices (blue and green LEDs) and Arsenic Phosphide (AsP) based devices (red, orange, and yellow LEDs), which are used in television and laptop backlighting, general illumination, large area signage, specialty illumination, and many other applications. Our AsP MOCVD systems are also used to make high-efficiency triple junction photovoltaic solar cells. In 2014 we introduced two new MOCVD platforms: the TurboDisc® EPIK700 GaN MOCVD System (EPIK700) and the Propel PowerGaN MOCVD System (Propel). The EPIK700 MOCVD system combines the industry's highest productivity and best-in-class yields with low cost of operation, further enabling lower manufacturing costs for LEDs for general lighting applications. The Propel MOCVD system incorporates single-wafer reactor technology for outstanding film uniformity, yield, and device performance. We believe the Propel MOCVD system's new 200mm technology enables the development of highly-efficient GaN-based power electronic devices that have the potential to accelerate the industry's transition from research and development to high volume production.

Industry Trends Impacting MOCVD

As part of the shift toward more efficient energy use across the globe, we believe LED technology will play a key role in energy and cost savings in lighting. LED adoption is happening initially in outdoor, commercial, and industrial lighting where high usage and lower efficiency make incumbent lighting costly. LEDs still represent a small segment of the overall lighting market. According to a 2014 report from IHS Research, LEDs (unit lamps) will grow from today's 5% global market penetration to 23% by 2019. Further adoption of LEDs across all forms of lighting is expected to occur in the coming years, with rapidly declining LED costs, shortening payback periods versus conventional lighting technologies, and ban-the-bulb legislation now underway in more than 20 countries around the globe. In addition to the incandescent bulb phase-outs, many countries have implemented policies to accelerate adoption of LEDs. In the same report, IHS Research stated that unit shipments of LED chips used for lighting applications reached 108 billion during 2014 and are forecasted to grow at an over 20% compounded annual growth rate, reaching nearly 300 billion units shipped in 2019.

Our MOCVD technology is at the core of our customers' process tools that are required to make LEDs. We have experienced periods of rapid growth as LEDs were adopted for TV backlighting and LED producers, particularly in China, made significant investments in the industry. Following this investment wave, there was an oversupply of MOCVD equipment and our business went into a deep and prolonged decline. However, as the LED industry grows and LED adoption into the lighting market increases, our MOCVD business benefits, and we saw a meaningful improvement in 2014, driven by renewed equipment investments by global LED industry leaders. We expect further growth in our MOCVD products over the next few years. In order to help drive down the cost of LED manufacturing for our customers and maintain our market leadership position, we intend to keep introducing new products with significant cost of ownership advantages when compared to alternative equipment.

In other industry trends that impact MOCVD, we are seeing that power semiconductors are an emerging market opportunity for MOCVD equipment. While silicon-based transistors are the mainstream of power electronic devices today, GaN-on-Silicon based power electronics developed on MOCVD tools can potentially deliver higher performance (i.e., smaller form factors, higher efficiency, and better switching speed). Global industry leaders in power electronics are currently working on research and development programs to explore this new technology. Based on a June 2014 Yole Research report, GaN based power electronics adoption is expected to reach 4% of the Power Device market in 2020, valued at approximately \$566 million. This represents a compounded annual growth rate of 94% from 2014. The main driver of this growth is the adoption of GaN based devices used for hybrid electric vehicles, consumer electronics, solar and wind power, and power supplies.

Molecular Beam Epitaxy Systems

Molecular Beam Epitaxy (MBE) is the process of precisely depositing epitaxially aligned atomically thin crystal layers, or epilayers, of elemental materials onto a substrate in an ultra-high vacuum environment. Our MBE systems, sources, and components are used to manufacture critical epitaxial layers in applications such as solar cells, fiber-optics, mobile phones, radar systems, and displays. For many compound semiconductors, MBE is the critical first step of the fabrication process, ultimately determining device functionality and performance. We provide MBE systems and components for the production of wireless devices (e.g., power amplifiers, high electron mobility transistors, or hetero-junction bipolar transistors) and a broad array of research applications for new compound semiconductor materials. In 2013, we introduced the GENxplor R&D MBE System, the industry's first fully-integrated MBE system for the compound semiconductor research and development market. The GENxplor MBE system creates high quality epitaxial layers on substrates up to 3 in diameter and is ideal for cutting edge research on a wide variety of materials including gallium arsenide, nitrides, and oxides.

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Industry Trends Impacting MBE

In 2013, we refocused our product portfolio to increase our market share in sales of MBE systems to scientific research organizations and universities. As a result, we won the majority of research orders in 2014. Variability in our MBE product portfolio is primarily influenced by funding of semiconductor research and development and manufacturing of compound semiconductor devices with MBE systems, such as laser diodes and rf devices for cell phones. Due to industry consolidation and resulting overcapacity, our sales of MBE production tools have been declining for the last two years.

Fast Array Scanning Atomic Layer Deposition Systems

Atomic Layer Deposition (ALD) is a thin film deposition method in which a film is grown on a substrate by exposing its surface to alternate gaseous species. We believe that Fast Array Scanning ALD (FAST-ALD) represents a paradigm shift in a technology long known for excellent deposition uniformity and pin-hole free films. While traditional ALD is slow, costly, and limited to chamber-sized reactors, FAST-ALD can deposit materials below 100° Celsius and 10 times faster, making it capable of deposition on substrates with virtually no size limitation. Our patented linear reactor allows the chemical reaction to occur at the substrate's surface, and we are currently investigating applications for this technology in the OLED and semiconductor markets. In December 2014, we successfully demonstrated our FAST-ALD technology for flexible OLED encapsulation, but at the same time the incumbent deposition technology has progressed to satisfy current market requirements. As a result, we decided to refocus our ALD research and development efforts on ALD applications within the semiconductor and other markets. We continue to monitor the flexible OLED market opportunity.

Precision Surface Processing Systems

In December 2014, we acquired Solid State Equipment LLC, a leading innovator in single wafer wet etch, clean, and surface preparation equipment targeting high growth segments in advanced packaging, micro-electro-mechanical systems (MEMS), and compound semiconductor, for \$145.5 million, net of cash acquired, and we have rebranded the business Precision Surface Processing (PSP). PSP's two core platforms are the WaferEtch and the WaferStorm. The flagship of the WaferEtch platform, the TSV REVEALER, is specifically configured to address the requirements of TSV reveal, which is the process where the backside of a wafer is thinned to reveal the copper interconnects. TSV reveal has become a target area in the manufacture of 2.5D and 3D-IC packaging for process control and cost reduction. The WaferStorm platform is based on PSP's unique soak and spray technology, which provides improved performance at a lower cost of ownership than conventional wet bench-only or spray-only approaches.

Industry Trends Impacting Surface Processing

Demand for higher performance, increased functionality, smaller form factor, and lower power consumption in mobile devices, consumer electronics, and high performance computing is expected to accelerate advanced packaging technology adoption. Key drivers for this inflection are applications in 3D stacked memory, 3D system-on-chip, and MEMS. Increasing shipments in smartphones and wearable electronics with more sophisticated sensing functions further drive growth in the MEMS market. Third party research firms including Yole Développement estimate that wafer-level packaging, GaN lighting LEDs, GaN power devices, and MEMS are expected to grow at double digit compound annual growth rates for the next three to five years.

Ion Beam Deposition Systems

Our NEXUS® Ion Beam Deposition (IBD) systems utilize ion beam technology to deposit precise layers of thin films. The NEXUS systems may be included on our cluster system platform to allow either parallel or sequential deposition/etch processes. IBD systems deposit high purity thin film layers and provide maximum uniformity and repeatability. In addition to IBD systems, we provide a broad array of ion beam sources. These technologies are applicable in the hard drive industry as well as for optical coatings and other end markets. Our SPECTOR® systems offer manufacturers improvements in target material utilization, optical endpoint control, and process time for cutting-edge optical interference coating applications.

Ion Beam Etch Systems

Our NEXUS Ion Beam Etch (IBE) systems utilize a charged particle beam consisting of ions to etch precise, complex features for use primarily by data storage and telecommunications device manufacturers in the fabrication of discrete and integrated microelectronic devices.

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Other Data Storage Products

We make a broad array of deposition systems including Physical Vapor Deposition, Diamond Like Carbon Deposition, and Chemical Vapor Deposition Systems. In addition, our Optium® products generally are used in back-end applications in data storage fabrication facilities where TFMHs or sliders are fabricated. This equipment includes lapping tools, which enable precise material removal within three nanometers, which is necessary for next generation TFMHs. We also manufacture tools that slice and dice wafers into row bars and TFMHs.

Industry Trends Impacting Our Ion Beam and Other Systems

While hard disk drives (HDDs) face significant competition from flash memory, we believe that HDDs will continue to provide the best value for mass storage and will remain at the forefront of large capacity storage applications. This is especially true for data center applications where large volumes of data storage are required to serve an increasingly mobile population. According to data storage research firm TrendFocus February 2014 report, shipments of TFMHs, the HDD component that our equipment makes, are forecasted to grow at a compound annual growth rate of 11% from 2014 to 2018. The HDD manufacturing industry continues to slowly absorb the excess manufacturing capacity that existed after significant consolidation of the industry in 2011. While we have started to see signs of capacity constraints in some process areas and have experienced an increase in orders for our equipment at the end of 2014, low growth is expected to continue. Future demand for our data storage systems is unclear and orders are expected to fluctuate from quarter to quarter.

Throughout industry cycles, we continue to invest in developing systems to support advanced technologies such as two dimensional magnetic recording (TDMR) and heat assisted magnetic recording (HAMR). These technologies increase the density of data that can be stored on a disk and require technological advances in the TFMH design, manufacturing methods, and equipment.

Our ion beam and other data storage systems are also sold for applications in MEMS magnetic sensors, rf filters, optical coatings, and extreme ultraviolet (EUV) photomasks. We have put in place new product development, marketing, and sales strategies to grow the non-data storage applications of our technologies. We expect growth to be driven by mobility trends (mobile phone chips and MEMS), and growth in our optical coatings business comes from higher throughput product offerings. Recent progress in EUV production readiness incrementally improves our outlook for this market.

Sales and Service

We sell our products and services worldwide primarily through various strategically located sales and service facilities in the United States, Europe, and Asia Pacific, and we believe that our customer service organization is a significant factor in our success. We provide service and support on a warranty, service contract, and an individual service-call basis. We believe that offering timely support creates stronger relationships with customers and provides us with a significant competitive advantage. Revenue from the sales of parts, upgrades, service, and support represented approximately 25%, 29%, and 21% of our net sales for the years ended December 31, 2014, 2013, and 2012, respectively. Part sales represented approximately 21%, 23%, and 17% of our net sales for those years, respectively, and service and support sales were 4%, 6%, and 4%, respectively.

Customers

We sell our products to many of the world's LED manufacturers, semiconductor manufacturers, hard drive manufacturers, research centers, and universities. We rely on certain principal customers for a significant portion of our sales. Sales to HC SemiTek and Seoul Viosys Co. each accounted for more than 10% of our total net sales in 2014, sales to HC SemiTek accounted for more than 10% of our total net sales in 2013, and sales to Western Digital accounted for more than 10% of our total net sales in 2012. If any principal customer discontinues its relationship with us or suffers economic difficulties, our business, prospects, financial condition, and operating results could be materially and adversely affected.

Research and Development

Our research and development functions are focused on the continued and timely creation of new products and enhancements to existing products, both of which are necessary to maintain our competitive position. We work collaboratively with our customers to help ensure our technology and product roadmaps are aligned with customer requirements. Our research and development activities take place at our facilities in Fremont, California; St. Paul, Minnesota; Somerset, New Jersey; Plainview, New York; Poughkeepsie, New York; Horsham, Pennsylvania; and Hyeongok-ri, South Korea.

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Our research and development expenses were approximately \$81.2 million, \$81.4 million, and \$95.2 million, or approximately 21%, 25%, and 18% of net sales for the years ended December 31, 2014, 2013, and 2012, respectively. These expenses consisted primarily of salaries, project materials, and other product development and enhancement costs.

Suppliers

We currently outsource certain functions to third parties, including the manufacture of all or substantially all of our MOCVD systems, ion beam and other data storage systems, and ion sources. We primarily rely on several suppliers for the manufacturing of these systems. In addition, certain of the components and sub-assemblies included in our products are obtained from a single source or a limited group of suppliers.

Backlog

Our backlog consists of orders for which we received a firm purchase order, a customer-confirmed shipment date within twelve months, and a deposit where required.

Our backlog increased to \$286.7 million as of December 31, 2014 from \$143.3 million as of December 31, 2013. During 2014, we recorded backlog adjustments of approximately \$1.6 million relating to orders that no longer met our bookings criteria. As of December 31, 2014, \$23.4 million of the backlog was from our acquisition of PSP.

Competition

In each of the markets that we serve, we face substantial competition from established competitors, some of which have greater financial, engineering, and marketing resources than us, as well as from smaller competitors. In addition, many of our products face competition from alternative technologies, some of which are more established than those used in our products. Significant factors for customer selection of our tools include system performance, accuracy, repeatability, ease of use, reliability, cost of ownership, and technical service and support. We believe that we are competitive based on the customer selection factors in each market we serve. None of our competitors compete with us across all of our product lines.

Some of our competitors include, but are not limited to: Applied Materials; LAM Research; Riber; Aixtron; Taiyo Nippon Sanso; Canon Anelva; DCA Instruments; Leybold Optics; Oerlikon Balzers; and Oxford Instruments.

Intellectual Property

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Our success depends in part on our proprietary technology. Although we attempt to protect our intellectual property rights through patents, copyrights, trade secrets, and other measures, there can be no assurance that we will be able to protect our technology adequately or that competitors will not be able to develop similar technology independently. We have over 300 patents in the United States and other countries and have additional applications pending for new inventions.

We have patents and exclusive and non-exclusive licenses to patents owned by others covering certain of our products, which we believe provide us with a competitive advantage. We have a policy of seeking patents on inventions concerning new products and improvements as part of our ongoing research, development, and manufacturing activities. We believe that there is no single patent or exclusive or non-exclusive license to patents owned by others that is critical to our operations, as the success of our business depends primarily on the technical expertise, innovation, customer satisfaction, and experience of our employees.

We also rely upon trade secret protection for our confidential and propriety information. There can be no assurance that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or that we can meaningfully protect our trade secrets. In addition, we cannot be certain that we will not be sued by third parties alleging that we have infringed their patents or other intellectual property rights. If any third party sues us, our business, results of operations, or financial condition could be materially adversely affected.

Employees

As of December 31, 2014, we had approximately 800 employees, of which there were 147 in manufacturing and testing, 89 in sales and marketing, 153 in service and product support, 239 in engineering, research and development, and 158 in information technology, general administration, and finance. In addition, we had 13 temporary employees/outside contractors. The success of our future operations depends on our ability to recruit and retain engineers, technicians, and other highly skilled

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professionals who are in considerable demand. We feel that we have adequate programs in place to attract, motivate, and retain our employees. We monitor industry practices to make sure that our compensation and employee benefits remain competitive. However, there can be no assurance that we will be successful in recruiting or retaining key personnel. We believe that our employee relations are good.

Financial Information About Segments and Geographic Areas

Refer to Note 19, Segment Reporting and Geographic Information, in the Notes to the Consolidated Financial Statements for financial data pertaining to our segment and geographic operations.

Available Information

Our corporate website address is www.veeco.com. All filings we make with the Securities and Exchange Commission (SEC), including our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K, our proxy statements and any amendments thereto filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available for free in the Investor Relations section of our website as soon as reasonably practicable after they are filed with or furnished to the SEC. Our SEC filings are available to be read or copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information about the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. Our filings can also be obtained for free on the SEC's website at www.sec.gov. The reference to our website address does not constitute inclusion or incorporation by reference of the information contained on our website in this Form 10-K or other filings with the SEC, and the information contained on our website is not part of this document.

Item 1A. Risk Factors

Risk Factors That May Impact Future Results

Current and potential stockholders should consider carefully the risk factors described below. Any of these factors, many of which are beyond our control, could materially adversely affect our business, financial condition, operating results, cash flow, and stock price.

Unfavorable market conditions may adversely affect our operating results.

Conditions of the markets in which we operate are volatile and, in the past, have deteriorated significantly in many of the countries and regions in which we do business and may become depressed again in the future. Foreign government incentives designed to encourage the development of the LED industry have been unpredictable, and the availability of the incentives can impact the demand for our MOCVD products. We have experienced and may continue to experience customer rescheduling and, to a lesser extent, cancellations of orders for our products. Adverse

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market conditions relative to our products would negatively impact our business, and could result in:

- reduced demand for our products;
- rescheduling and cancellations of orders for our products, resulting in negative backlog adjustments;
- increased price competition and lower margin for our products;
- increased competition from sellers of used equipment or lower-priced alternatives to our products;
- increased risk of excess and obsolete inventories;
- increased risk in the collectability of amounts due from our customers;
- increased risk in potential reserves for doubtful accounts and write-offs of accounts receivable;
- disruptions in our supply chain as we reduce our purchasing volumes and limit our contract manufacturing operations; and
- higher operating costs as a percentage of revenues.

If the markets in which we participate fail to experience a recovery or experience a further downturn, this could have a further negative impact on our sales and revenue generation, margins and operating expenses, and profitability.

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A reduction or elimination of foreign government subsidies and economic incentives may adversely affect the future order rate for our MOCVD equipment.

We generate a significant portion of our revenue in China. In recent years, the Chinese government has provided various incentives to encourage development of the LED industry, including subsidizing a significant portion of the purchase cost of MOCVD equipment. These subsidies have enabled and encouraged certain customers in this region to purchase more of our MOCVD equipment than these customers might have purchased without these subsidies. The availability of these subsidies has varied over time and may end at some point in the future. A reduction or elimination of these incentives may result in a reduction in future orders for our MOCVD equipment in this region, which could materially and adversely affect our business, financial condition, and results of operations.

A related risk is that many customers use or had planned to use Chinese government subsidies, in addition to other incentives from the Chinese government, to build new manufacturing facilities or to expand existing manufacturing facilities. Delays in the start-up of these facilities or the cancellation of construction plans altogether, together with other related issues pertaining to customer readiness, could adversely impact the timing of our revenue recognition, could result in order cancellations, and could have other negative effects on our business, financial condition, and results of operation.

The cyclical nature of the industries we serve directly affects our business.

Our business depends in large part upon the capital expenditures of manufacturers in the LED markets, data storage markets, and other device markets. We are subject to the business cycles of these industries, the timing, length, and volatility of which are difficult to predict. These industries have historically been highly cyclical and have experienced significant economic downturns in the last decade. As a capital equipment provider, our revenue depends in large part on the spending patterns of these customers, who often delay expenditures or cancel or reschedule orders in reaction to variations in their businesses or general economic conditions. In downturns, we must be able to quickly and effectively align our costs with prevailing market conditions, as well as motivate and retain key employees. However, because a portion of our costs are fixed, our ability to reduce expenses quickly in response to revenue shortfalls may be limited. Downturns in one or more of these industries have had and will likely have a material adverse effect on our business, financial condition, and operating results. Alternatively, during periods of rapid growth, we must be able to acquire and/or develop sufficient manufacturing capacity to meet customer demand, and attract, hire, assimilate, and retain a sufficient number of qualified people. We cannot give assurances that our net sales and operating results will not be adversely affected if our customers experience economic downturns or slowdowns in their businesses.

We operate in industries characterized by rapid technological change.

Each of the industries in which we operate are subject to rapid technological change. Our ability to remain competitive depends on our ability to enhance existing products and develop and manufacture new products in a timely and cost effective manner and to accurately predict technology transitions. Because new product development commitments must be made well in advance of sales, we must anticipate the future demand for products in selecting which development programs to fund and pursue. Our financial results for the current year and in the future will depend to a great extent on the successful introduction of several new products, many of which require achieving increasingly stringent technical specifications. We cannot be certain that we will be successful in selecting, developing, manufacturing, and marketing new products or new technologies or in enhancing existing products.

We depend on a limited number of customers, located primarily in a limited number of regions, which operate in highly concentrated industries.

Our customer base continues to be highly concentrated. Orders from a relatively limited number of customers have accounted for, and likely will continue to account for, a substantial portion of our net sales, which may lead customers to demand pricing and other terms less favorable to us. Our five largest customers accounted for 46% of our total net sales in 2014. Customer consolidation activity involving some of our largest customers could result in an even greater concentration of our sales in the future.

If a principal customer discontinues its relationship with us or suffers economic setbacks, our business, financial condition, and operating results could be materially and adversely affected. Our ability to increase sales in the future will depend in part upon our ability to obtain orders from new customers. We cannot be certain that we will be able to do so. In addition, because a relatively small number of large manufacturers, many of whom are our customers, dominate the industries in

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which they operate, it may be especially difficult for us to replace these customers if we lose their business. A substantial portion of orders in our backlog are orders from our principal customers.

In addition, a substantial investment is required by customers to install and integrate capital equipment into a production line. As a result, once a manufacturer has selected a particular vendor's capital equipment, we believe that the manufacturer generally relies upon that equipment for the specific production line application and frequently will attempt to consolidate its other capital equipment requirements with the same vendor. Accordingly, if a customer selects a competitor's product over ours, we could experience difficulty selling to that customer for a significant period of time.

Furthermore, we do not have long-term contracts with our customers. As a result, our agreements with our customers do not provide any assurance of future sales, and we are exposed to competitive price pressure on each new order we attempt to obtain. Our failure to obtain new sales orders from new or existing customers would have a negative impact on our results of operations.

Our customer base is also highly concentrated in terms of geography, and the majority of our sales are to customers located in a limited number of countries. In 2014, 62% of our total net sales were to customers located in China, Taiwan and South Korea. Dependence upon sales emanating from a limited number of regions increases our risk of exposure to local difficulties and challenges, such as those associated with regional economic downturns, political instability, fluctuating currency exchange rates, natural disasters, social unrest, pandemics, terrorism, or acts of war. In addition, we may encounter challenges associated with political and social attitudes, laws, rules, regulations, and policies within these countries that favor domestic companies over non-domestic companies, including customer- or government-supported efforts to promote the development and growth of local competitors. Our reliance upon customer demand arising primarily from a limited number of countries could materially adversely impact our future results of operations.

We face significant competition.

We face significant competition throughout the world, which may increase as certain markets in which we operate continue to expand. Some of our competitors have greater financial, engineering, manufacturing, and marketing resources than us. In addition, we face competition from smaller emerging equipment companies whose strategy is to provide a portion of the products and services we offer, with a focused approach on innovative technology for specialized markets. New product introductions or enhancements by us or our competitors could cause a decline in sales or loss of market acceptance of our existing or prior generation products. Increased competitive pressure could also lead to intensified price competition resulting in lower margins. Our failure to compete successfully with these other companies would seriously harm our business.

The timing of our orders, shipments, and revenue recognition may cause our quarterly operating results to fluctuate significantly.

We derive a substantial portion of our net sales in any fiscal period from the sale of a relatively small number of high-priced systems. As a result, the timing of recognition of revenue for a single transaction could have a material effect on our sales and operating results for a particular fiscal period. As is typical in our industry, orders, shipments, and customer acceptances often occur during the last few weeks of a quarter. As a result, delay of only a week or two will determine which period revenue is reported in and can cause volatility in our revenue for a given reporting period. Our quarterly results have fluctuated significantly in the past, and we expect this trend to continue. If our orders, shipments, net sales, or operating results in a particular quarter do not meet expectations, our stock price may be adversely affected.

Our sales cycle is long and unpredictable.

Historically, we have experienced long and unpredictable sales cycles (the period between our initial contact with a potential customer and the time when we recognize revenue from that customer). Our sales cycle can exceed twelve months. The timing of an order often depends on the capital expenditure budget cycle of our customers, which is completely out of our control. In addition, the time it takes us to build a product to customer specifications typically ranges from three to six months. When coupled with the fluctuating amount of time required for shipment, installation, and final acceptance, our sales cycles often vary widely, and variations in length of this period can cause further fluctuations in our operating results. As a result of our lengthy sales cycle, we may incur significant research and development expenses and selling, general, and administrative expenses before we generate revenues for these products. We may never generate the anticipated revenues if a customer cancels or changes plans. Variations in the length of our sales cycle could also cause our sales and, therefore, our cash flow and results of operation to fluctuate widely from period to period.

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Our backlog is subject to customer cancellation or modification and such cancellation could result in decreased sales and increased provisions for excess and obsolete inventory and/or liabilities to our suppliers for products no longer needed.

Customer purchase orders are subject to cancellation or rescheduling by the customer, sometimes with limited or no penalties. Often, we have incurred expenses prior to such cancellation without adequate monetary compensation. We adjust our backlog for such cancellations, contract modifications, and delivery delays that result in a delivery period in excess of one year, among other items. A downturn in MOCVD could result in increases in order cancellations and/or postponements.

We record a provision for excess and obsolete inventory based on historical and future usage trends and other factors including the consideration of the amount of backlog we have on hand at any particular point in time. If our backlog is canceled or modified, our estimates of future product demand may prove to be inaccurate, in which case we may have understated the provision required for excess and obsolete inventory. In the future, if we determine that our inventory is overvalued, we will be required to recognize such costs in our financial statements at the time of such determination. In addition, we place orders with our suppliers based on our customers' orders to us. If our customers cancel their orders with us, we may not be able to cancel our orders with our suppliers and may be required to take a charge for these cancelled commitments to our suppliers. Any such charges could be material to our results of operations and financial condition.

Our failure to estimate customer demand accurately could result in excess or obsolete inventory and/or liabilities to our suppliers for products no longer needed, while manufacturing interruptions or delays could affect our ability to meet customer demand.

Our business depends on our ability to accurately forecast and supply equipment, services, and related products that meet the rapidly changing technical and volume requirements of our customers, which depends in part on the timely delivery of parts, components, and subassemblies (collectively, parts) from suppliers. Uncertain worldwide economic conditions and market instabilities make it difficult for us (and our customers and our suppliers) to accurately forecast future product demand. If actual demand for our products is different than expected, we may purchase more/fewer parts than necessary or incur costs for canceling, postponing, or expediting delivery of parts. If we overestimate the demand for our products, excess inventory could result, which could be subject to heavy price discounting, which could become obsolete, and which could subject us to liabilities to our suppliers for products no longer needed. Similarly, we may be harmed in the event that our competitors overestimate the demand for their products and engage in heavy price discounting practices as a result. In addition, the volatility of demand for capital equipment increases capital, technical, and other risks for companies in the supply chain.

Furthermore, some key parts may be subject to long lead-times and/or obtainable only from a single supplier or limited group of suppliers, and some sourcing or subassembly is provided by suppliers located in countries other than the United States. We may experience significant interruptions of our manufacturing operations, delays in our ability to deliver products or services, increased costs, or customer order cancellations as a result of:

- the failure or inability of suppliers to timely deliver quality parts;
- volatility in the availability and cost of materials;

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- difficulties or delays in obtaining required import or export approvals;
- information technology or infrastructure failures;
- natural disasters (such as earthquakes, tsunamis, floods or storms); or
- other causes (such as regional economic downturns, pandemics, political instability, terrorism, or acts of war) that could result in delayed deliveries, manufacturing inefficiencies, increased costs, or order cancellations.

In addition, in the event of an unanticipated increase in demand for our products, our need to rapidly increase our business and manufacturing capacity may be limited by working capital constraints of our suppliers and may exacerbate any interruptions in our manufacturing operations and supply chain and the associated effect on our working capital. Any or all of these factors could materially and adversely affect our business, financial condition, and results of operations.

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Our failure to successfully manage our outsourcing activities or failure of our outsourcing partners to perform as anticipated could adversely affect our results of operations and our ability to adapt to fluctuating order volumes.

To better align our costs with market conditions, increase the percentage of variable costs relative to total costs, and to increase productivity and operational efficiency, we have outsourced certain functions to third parties, including the manufacture of all or substantially all of our MOCVD systems, ion beam and other data storage systems, and ion sources. We are relying heavily on our outsourcing partners to perform their contracted functions and to allow us the flexibility to adapt to changing market conditions, including periods of significantly diminished order volumes. If our outsourcing partners do not perform as required, or if our outsourcing model does not allow us to realize the intended cost savings and flexibility, our results of operations (and those of our third party providers) may be adversely affected. Disputes and possibly litigation involving third party providers could result, and we could suffer damage to our reputation. Dependence on contract manufacturing and outsourcing may also adversely affect our ability to bring new products to market. Although we attempt to select reputable providers, it is possible that one or more of these providers could fail to perform as we expect. In addition, the role of third party providers has required and will continue to require us to implement changes to our existing operations and adopt new procedures and processes for retaining and managing these providers in order to realize operational efficiencies, assure quality, and protect our intellectual property. If we do not effectively manage our outsourcing strategy or if third party providers do not perform as anticipated, we may not realize the benefits of productivity improvements, and we may experience operational difficulties, increased costs, manufacturing and/or installation interruptions or delays, inefficiencies in the structure and/or operation of our supply chain, loss of intellectual property rights, quality issues, increased product time-to-market and/or inefficient allocation of human resources, any or all of which could materially and adversely affect our business, financial condition, and results of operations.

We rely on a limited number of suppliers, some of whom are our sole source for particular components.

We currently outsource certain functions to third parties, including the manufacture of all or substantially all of our MOCVD systems, ion beam and other data storage systems, and ion sources. We primarily rely on several suppliers for the manufacturing of these systems. We plan to maintain some level of internal manufacturing capability for these systems. The failure of our suppliers to meet their contractual obligations under our supply arrangements and our inability to make alternative arrangements or resume the manufacture of these systems ourselves could have a material adverse effect on our relationships with our customers and/or our business, financial condition, and results of operation.

In addition, certain of the components and sub-assemblies included in our products are obtained from a single source or a limited group of suppliers. Our inability to develop alternative sources, if necessary, could result in a prolonged interruption in supply or a significant increase in the price of one or more components, which could adversely affect our business, financial condition, and results of operation.

Our inability to attract, retain, and motivate key employees could have a material adverse effect on our business.

Our success depends upon our ability to attract, retain, and motivate key employees, including those in executive, managerial, engineering, and marketing positions, as well as highly skilled and qualified technical personnel and personnel to implement and monitor our financial and managerial controls and reporting systems. Attracting, retaining, and motivating such qualified personnel may be difficult due to challenging industry conditions, competition for such personnel by other technology companies, consolidations and relocations of operations, and workforce reductions. While we have entered into employment agreements with certain key personnel, our inability to attract, retain, and motivate key personnel could have a material adverse effect on our business, financial condition, and results of operation.

Our acquisition strategy subjects us to risks associated with evaluating and pursuing these opportunities and integrating these businesses.

We have considered numerous acquisition opportunities and completed several significant acquisitions in the past. We may consider acquisitions of, or investments in, other businesses in the future. Acquisitions involve numerous risks, many of which are unpredictable and beyond our control, including:

- difficulties and increased costs in integrating the personnel, operations, technologies, and products of acquired companies;
- diversion of management's attention while evaluating, pursuing, and integrating the business to be acquired;
- potential loss of key employees of acquired companies, especially if a relocation or change in responsibilities is involved;

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- difficulties in managing geographically dispersed operations in a cost-effective manner;
- lack of synergy or inability to realize expected synergies;
- unknown, underestimated, and/or undisclosed commitments or liabilities;
- increased amortization expense relating to intangible assets; and
- other adverse effects on our business, including the potential impairment and write-down of amounts capitalized as intangible assets and goodwill as part of the acquisition, as a result of technological advancements or worse-than-expected performance by the acquired company.

Our inability to effectively manage these risks could materially and adversely affect our business, financial condition, and results of operation. We are subject to many of these risks in connection with our recent acquisitions of Synos Technology, Inc. and Solid State Equipment LLC. Refer to Note 5, Business Combinations, in the Notes to the Consolidated Financial Statements for information on these recent acquisitions.

In addition, if we issue equity securities to pay for an acquisition, the ownership percentage of our then-existing shareholders would be reduced and the value of the shares held by these shareholders could be diluted, which could adversely affect the price of our stock. If we use cash to pay for an acquisition, the payment could significantly reduce the cash that would be available to fund our operations or other purposes.

Timing of market adoption of LED technology for general lighting is uncertain.

Our future business prospects depend largely on the market adoption of products that incorporate our technologies. Potential barriers to such adoption include higher initial costs and customer familiarity with, and substantial investment and know-how in, existing technologies. These barriers apply to the adoption of LED technology for general illumination applications, including residential, commercial, and street lighting markets. While the use of LED technology for general lighting has grown in recent years, challenges remain and widespread adoption may not occur at currently projected rates. Furthermore, the adoption of, or changes in, government policies that discourage the use of traditional lighting technologies may impact LED adoption.

Our sales to LED, data storage and other manufacturers are highly dependent on these manufacturers' sales for consumer electronics applications, which can experience significant volatility due to seasonal and other factors, which could materially adversely impact our future results of operations.

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The demand for LEDs, hard disk drives, and other Company products is highly dependent on sales of consumer electronics, such as flat-panel televisions and computer monitors, computers, tablets, digital video recorders, camcorders, MP3/4 players, smartphones, cell phones, and other mobile devices. Manufacturers of LEDs and hard disk drives are among our largest customers and have accounted for a substantial portion of our revenues for the past several years. Factors that could influence the levels of spending on consumer electronic products include consumer confidence, access to credit, volatility in fuel and other energy costs, conditions in the residential real estate and mortgage markets, labor and healthcare costs, and other macroeconomic factors affecting consumer spending behavior. These and other economic factors have had and could continue to have a material adverse effect on the demand for our customers' products and, in turn, on our customers' demand for our products and services and on our financial condition and results of operations. Furthermore, manufacturers of LEDs have in the past overestimated their potential market share growth. If this growth is currently overestimated or is overestimated in the future, we may experience further cancellations of orders in backlog, rescheduling of customer deliveries, obsolete inventory and/or liabilities to our suppliers for products no longer needed.

In addition, the demand for some of our customers' products can be even more volatile and unpredictable due to the possibility of competing technologies, such as flash memory as an alternative to hard disk drives. Unpredictable fluctuations in demand for our customers' products or rapid shifts in demand from our customers' products to alternative technologies could materially adversely impact our future results of operations.

Our operating results have been, and may continue to be, adversely affected by tightening credit markets.

As a global company with worldwide operations, we are subject to volatility and adverse consequences associated with worldwide economic downturns. In the event of a worldwide downturn, many of our customers may delay or further reduce their purchases of our products and services. If negative conditions in the global credit markets prevent our customers from obtaining credit, product orders in these channels may decrease, which could result in lower revenue. In addition, we may

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experience cancellations of orders in backlog, rescheduling of customer deliveries, and attendant pricing pressures. If our suppliers face challenges in obtaining credit, in selling their products, or otherwise in operating their businesses, they may become unable to continue to offer the materials we use to manufacture our products which could impair our operations.

Furthermore, tightening macroeconomic measures and monetary policies adopted by China's government aimed at preventing overheating of China's economy and controlling China's high level of inflation have limited, and may continue to limit, the availability of financing to our customers in this region. Limited financing, or delays in the timing of such financing, may result in delays and cancellations of shipments of our products (and associated revenues) conditioned on such financing.

In addition, we finance a portion of our sales through trade credit. In addition to ongoing credit evaluations of our customers' financial condition, we seek to mitigate our credit risk by obtaining deposits and/or letters of credit on certain of our sales arrangements. We could suffer significant losses if a customer whose accounts receivable we have not secured fails or is otherwise unable to pay us. A significant loss in collections on our accounts receivable would have a negative impact on our financial condition and results of operation.

We are exposed to the risks of operating a global business, including the need to obtain export licenses for certain of our shipments and political risks in the countries we operate.

In 2014, approximately 89% of our net sales were generated from sales outside of the United States. We expect sales from non-U.S. markets to continue to represent a significant, and possibly increasing, portion of our sales in the future. Our non-U.S. sales and operations are subject to risks inherent in conducting business outside the United States, many of which are outside our control, including:

- difficulties in managing a global enterprise, including staffing, managing distributors and representatives, and repatriating cash in a tax efficient manner;
- regional economic downturns, varying foreign government support, and unstable political environments;
- political and social attitudes, laws, rules, regulations, and policies within countries that favor domestic companies over non-domestic companies, including government-supported efforts to promote the development and growth of local competitors;
- longer sales cycles and difficulty in collecting accounts receivable;
- multiple, conflicting, and changing governmental laws and regulations, including import/export controls and other trade barriers;

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- reliance on various information systems and information technology to conduct our business, which may be vulnerable to cyber-attacks by third parties or breached due to employee error, misuse or other causes that could result in business disruptions, loss of or damage to intellectual property, transaction errors, processing inefficiencies, or other adverse consequences should our security practices and procedures prove ineffective, and
- different customs and ways of doing business.

These challenges, many of which are associated with sales into the Asia-Pacific region, may continue and recur again in the future, which could have a material adverse effect on our business. In addition, political instability, terrorism, acts of war, or epidemics in regions where we operate may adversely affect or disrupt our business and results of operation.

Furthermore, products which are either manufactured in the United States or based on U.S. technology are subject to the U.S. Export Administration Regulations (EAR) when exported to and re-exported from international jurisdictions, in addition to the local jurisdiction's export regulations applicable to individual shipments. Currently, our MOCVD deposition systems and certain of our other products are controlled for export under the EAR. Licenses or proper license exceptions may be required for the shipment of our products to certain countries. Obtaining an export license requires cooperation from the customer and customer-facility readiness and can add time to the order fulfillment process. While we have generally been successful in obtaining export licenses in a timely manner, there can be no assurance that this will continue or that an export license can be obtained in each instance where it is required. If an export license is required but cannot be obtained, then we will not be permitted to export the product to the customer. The administrative processing, potential delay, and risk of ultimately not obtaining an export license pose a particular disadvantage to us relative to our non-U.S. competitors who are not required to comply with U.S. export controls. Non-compliance with the EAR or other applicable export regulations could result in a wide range of penalties including the denial of export privileges, fines, criminal

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penalties, and the seizure of commodities. In the event that any export regulatory body determines that any of our shipments violate applicable export regulations, we could be fined significant sums and/or our export capabilities could be restricted, which could have a material adverse impact on our business.

We may be exposed to liabilities under the Foreign Corrupt Practices Act and any determination that we violated these or similar laws could have a material adverse effect on our business.

We are subject to the Foreign Corrupt Practices Act (FCPA) and other laws that prohibit improper payments or offers of payments to foreign government officials, as defined by the statute, for the purpose of obtaining or retaining business. In addition, many of our customers have policies limiting or prohibiting us from providing certain types or amounts of entertainment, meals, or gifts to their employees. It is our policy to implement safeguards to discourage these practices by our employees and representatives. However, our safeguards may prove to be ineffective and our employees, consultants, sales agents, or distributors may engage in conduct for which we may be held responsible. Violations of the FCPA or similar laws or similar customer policies may result in severe criminal or civil sanctions or the loss of supplier privileges to a customer, and we may be subject to other liabilities, which could negatively affect our business, financial condition, and results of operation.

We are subject to internal control evaluations and attestation requirements of Section 404 of the Sarbanes-Oxley Act and any delays or difficulty in satisfying these requirements or negative reports concerning our internal controls could adversely affect our future results of operations and our stock price.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we must include in our Annual Report on Form 10-K a report by management on the effectiveness of our internal control over financial reporting. Ongoing compliance with this requirement is complex, costly, time-consuming, and is subject to significant judgment. If our internal controls are ineffective or if our management does not timely assess the adequacy of such internal controls, our ability to file timely and accurate periodic reports may be impeded. Any delays in filing may cause us to face the following risks and concerns, among others:

- concern on the part of our customers, partners, investors, and employees about our financial condition and filing delay status, including the potential loss of business opportunities;
- significant time and expense required to complete delayed filings and the distraction of our senior management team and board of directors as we work to complete delayed filings;
- investigations by the SEC and other regulatory authorities of the Company and of members of our management;
- limitations on our ability to raise capital and make acquisitions;

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- suspension or termination of our stock listing on The NASDAQ Stock Market and the removal of our stock as a component of certain stock market indices; and

- general reputational harm.

Any or all of the foregoing could result in the commencement of stockholder lawsuits against the Company. Any such litigation, as well as any proceedings that could arise as a result of a filing delay and the circumstances which gave rise to it, may be time consuming and expensive, may divert management attention from the conduct of our business, could have a material adverse effect on our business, financial condition, and results of operations, and may expose us to costly indemnification obligations to current or former officers, directors, or other personnel, regardless of the outcome of such matters, which may not be adequately covered by insurance.

Changes in accounting pronouncements or taxation rules or practices may adversely affect our financial results.

Changes in accounting pronouncements or taxation rules or practices can have a significant effect on our reported results. New accounting pronouncements or taxation rules and varying interpretations of accounting pronouncements or taxation practices have occurred and may occur in the future. New rules, changes to existing rules, if any, or the questioning of our current or past practices may adversely affect our reported financial results or change the way we conduct our business.

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We may be required to take additional impairment charges for goodwill and indefinite-lived intangible assets or definite-lived intangible and long-lived assets.

We are required to assess goodwill and indefinite-lived intangible assets annually for impairment, or on an interim basis, whenever certain events occur or circumstances change, such as an adverse change in business climate or a decline in the overall industry, that would more likely than not reduce the fair value below its carrying amount. We are also required to test our definite-lived assets, including acquired intangible assets and property, plant, and equipment, for recoverability and impairment whenever there are indicators of impairment, such as an adverse change in business climate.

As part of our long-term strategy, we may pursue future acquisitions of other companies or assets which could potentially increase our goodwill and intangible and long-lived assets. Adverse changes in business conditions could materially impact our estimates of future operations and result in additional impairment charges to these assets. If our goodwill or intangible and long-lived assets were to become further impaired, our financial condition and results of operation could be materially and adversely affected.

The price of our common shares may be volatile and could decline significantly.

The stock market in general and the market for technology stocks in particular has experienced volatility that has often been unrelated to the operating performance of companies. If these market or industry-based fluctuations continue, the trading price of our common shares could decline significantly independent of our actual operating performance, and shareholders could lose all or a substantial part of their investment. The market price of our common shares could fluctuate significantly in response to several factors, including, among others:

- general stock market conditions and uncertainty, such as those occasioned by a global liquidity crisis, negative financial news, and a failure of large financial institutions;

- receipt of substantial orders or cancellations for our products;

- issues associated with the performance and reliability of our products;

- actual or anticipated variations in our results of operations;

- announcements of financial developments or technological innovations;

- our failure to meet the performance estimates of investment research analysts;
- changes in recommendations and/or financial estimates by investment research analysts;
- strategic transactions, such as acquisitions, divestitures, or spin-offs; and
- the occurrence of major catastrophic events.

Significant price and value fluctuations have occurred with respect to the publicly traded securities of the Company and technology companies generally. The price of our common shares is likely to be volatile in the future. In the past, securities class action litigation often has been brought against a company following periods of volatility in the market price of its securities. If similar litigation were pursued against us, it could result in substantial costs and a diversion of management's attention and resources, which could materially and adversely affect our financial condition, results of operation, and liquidity.

The enforcement and protection of our intellectual property rights may be expensive and could divert our limited resources.

Our success depends in part upon the protection of our intellectual property rights. We rely primarily on patent, copyright, trademark, and trade secret laws, as well as nondisclosure and confidentiality agreements and other methods, to protect our proprietary information, technologies, and processes. We own various U.S. and international patents and have additional pending patent applications relating to certain of our products and technologies. The process of seeking patent protection is lengthy and expensive, and we cannot be certain that pending or future applications will actually result in issued patents or that issued patents will be of sufficient scope or strength to provide meaningful protection or commercial advantage. In addition, our intellectual property rights may be circumvented, invalidated, or rendered obsolete by the rapid pace of technological change. Policing unauthorized use of our products and technologies is difficult and time consuming. Furthermore, the laws of other countries may less effectively protect our proprietary rights than U.S. laws. Our outsourcing strategy requires that we share certain portions of our technology with our outsourcing partners, which poses additional

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risks of infringement and trade secret misappropriation. Infringement of our rights by a third party, possibly for purposes of developing and selling competing products, could result in uncompensated lost market and revenue opportunities. Similar exposure could result in the event that former employees seek to compete with us through their unauthorized use of our intellectual property and proprietary information. We cannot be certain that the steps we have taken will prevent the misappropriation or unauthorized use of our proprietary information and technologies, particularly in foreign countries where the laws may not protect our proprietary intellectual property rights as fully or as readily as U.S. laws. Further, we cannot be certain that the laws and policies of any country, including the United States, with respect to intellectual property enforcement or licensing will not be changed in a way detrimental to the sale or use of our products or technology.

We may need to litigate to enforce our intellectual property rights, protect our trade secrets, or determine the validity and scope of proprietary rights of others. As a result of any such litigation, we could lose our ability to enforce one or more patents or incur substantial unexpected costs. Any action we take to enforce our intellectual property rights could be costly and could absorb significant management time and attention, which, in turn, could negatively impact our operating results. In addition, failure to protect our trademark rights could impair our brand identity.

We may be subject to claims of intellectual property infringement by others.

From time to time we have received communications from other parties asserting the existence of patent or other rights which they believe cover certain of our products. We also periodically receive notice from customers who believe that we are required to indemnify them for damages they may incur related to infringement claims made against these customers by third parties. Our customary practice is to evaluate such assertions and to consider the available alternatives, including whether to seek a license, if appropriate. However, we cannot ensure that licenses can be obtained or, if obtained, will be on acceptable terms or that costly litigation or other administrative proceedings will not occur. If we are not able to resolve a claim, negotiate a settlement of the matter, obtain necessary licenses on commercially reasonable terms, and/or successfully prosecute or defend our position, our business, financial condition, and results of operation could be materially and adversely affected.

We are subject to foreign currency exchange risks.

We are exposed to foreign currency exchange rate risks that are inherent in our anticipated sales, sales commitments, and assets and liabilities that are denominated in currencies other than the U.S. dollar. Although we attempt to mitigate our exposure to fluctuations in currency exchange rates, hedging activities may not always be available or adequate to eliminate, or even mitigate, the impact of our exchange rate exposure. Failure to sufficiently hedge or otherwise manage foreign currency risks properly could materially and adversely affect our financial condition, results of operation, and liquidity.

If we are subject to cyber-attacks we could incur substantial costs and, if such attacks are successful, significant liabilities, reputational harm, and disruption to our operations.

We manage, store, and transmit various proprietary information and sensitive data relating to our operations. We may be subject to breaches of the information technology systems we use for these purposes. Experienced computer programmers and hackers may be able to penetrate our network security and misappropriate or compromise our confidential information (and/or third party confidential information), create system disruptions, or cause shutdowns. Computer programmers and hackers also may be able to develop and deploy viruses, worms, and other malicious software programs that attack our systems or our products, or that otherwise exploit any security vulnerabilities.

The costs to address the foregoing security problems and security vulnerabilities before or after a cyber-incident could be significant. Our remediation efforts may not be successful and could result in interruptions, delays, or cessation of service, and loss of existing or potential customers that may impede our sales, manufacturing, distribution, or other critical functions. In addition, breaches of our security measures and the unapproved dissemination of proprietary information or sensitive data about us or our customers or other third parties, could expose us, our customers, or other third parties to a risk of loss or misuse of this information, result in litigation and potential liability for us, damage our reputation, or otherwise harm our business.

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We have adopted certain measures that may have anti-takeover effects which may make an acquisition of our Company by another company more difficult.

We have adopted, and may in the future adopt, certain measures that may have the effect of delaying, deferring, or preventing a takeover or other change in control of our Company, any of which a holder of our common stock might not consider to be in the holder's best interest. These measures include:

- blank check preferred stock;
- classified board of directors; and
- certain certificate of incorporation and bylaws provisions.

Our board of directors has the authority to issue up to 500,000 shares of preferred stock and to fix the rights (including voting rights), preferences, and privileges of these shares (blank check preferred). Such preferred stock may have rights, including economic rights, senior to our common stock. As a result, the issuance of the preferred stock could have a material adverse effect on the price of our common stock and could make it more difficult for a third party to acquire a majority of our outstanding common stock.

Our board of directors is divided into three classes with each class serving a staggered three-year term. The existence of a classified board will make it more difficult for our shareholders to change the composition (and therefore the policies) of our board of directors in a relatively short period of time.

We have adopted certain certificate of incorporation and bylaws provisions which may have anti-takeover effects. These include: (a) requiring certain actions to be taken at a meeting of shareholders rather than by written consent, (b) requiring a super-majority of shareholders to approve certain amendments to our bylaws, (c) limiting the maximum number of directors, and (d) providing that directors may be removed only for cause. These measures and those described above may have the effect of delaying, deferring, or preventing a takeover or other change in control of the Company that a holder of our common stock might consider to be in the holder's best interest.

In addition, we are subject to the provisions of Section 203 of the General Corporation Law of the State of Delaware, which prohibits a Delaware corporation from engaging in any business combination, including mergers and asset sales, with an interested stockholder (generally, a 15% or greater stockholder) for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. The operation of Section 203 may have anti-takeover effects, which could delay, defer, or prevent a takeover attempt that a holder of our common stock might consider to be in the holder's best interest.

Despite the above measures, an activist shareholder could undertake action to implement governance, strategic, or other changes to the Company which a holder of our common stock might not consider to be in the holder's best interest. Such activities could interfere with our ability to execute our strategic plans, be costly and time consuming, disrupt our operations, and divert the attention of management and our employees.

We are subject to risks of non-compliance with environmental, health, and safety regulations.

We are subject to environmental, health, and safety regulations in connection with our business operations, including but not limited to regulations related to the research, development, and use of our products. Failure or inability to comply with existing or future environmental and safety regulations could result in significant remediation liabilities, the imposition of fines, and/or the suspension or termination of research, development, or use of certain of our products, each of which could have a material adverse effect on our business, financial condition, and results of operation. In addition, some of our operations involve the storage, handling, and use of hazardous materials that may pose a risk of fire, explosion, or environmental release. Such events could result from acts of terrorism, natural disasters, or operational failures and may result in injury or loss of life to our employees and others, local environmental contamination, and property damage. These events might cause a temporary shutdown of an affected facility, or portion thereof, and we could be subject to penalties or claims as a result. Each of these events could have a material adverse effect on our business, financial condition, and results of operation.

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Regulations related to conflict minerals will force us to incur additional expenses, may make our supply chain more complex, and may result in damage to our relationships with customers.

On August 22, 2012, under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, the SEC adopted new requirements for companies that manufacture products that contain certain minerals and metals, known as conflict minerals. These rules require public companies to perform diligence and to report annually to the SEC whether such minerals originate from the Democratic Republic of Congo and adjoining countries. The implementation of these new requirements could adversely affect the sourcing, availability, and pricing of minerals we use in the manufacture of our products. In addition, we will incur additional costs to comply with the disclosure requirements, including costs related to determining the source of any of the relevant minerals used in our products. Given the complexity of our supply chain, we may not be able to ascertain the origins of these minerals used in our products through the due diligence procedures that we implement, which may harm our reputation. We may also face difficulties in satisfying customers who may require that our products be certified as conflict mineral free, which could harm our relationships with these customers and lead to a loss of revenue. These new requirements could limit the pool of suppliers that can provide conflict-free minerals, and we may be unable to obtain conflict-free minerals at competitive prices, which could increase our costs and adversely affect our manufacturing operations and our profitability.

We have significant operations in locations which could be materially and adversely impacted in the event of a natural disaster or other significant disruption.

Our operations in the United States, the Asia-Pacific region, and in other areas could be subject to natural disasters or other significant disruptions, including earthquakes, tsunamis, fires, hurricanes, floods, water shortages, other extreme weather conditions, medical epidemics, acts of terrorism, power shortages and blackouts, telecommunications failures, and other natural and manmade disasters or disruptions. In the event of such a natural disaster or other disruption, we could experience disruptions or interruptions to our operations or the operations of our suppliers, distributors, resellers or customers, destruction of facilities, and/or loss of life, all of which could materially increase our costs and expenses and materially and adversely affect our business, financial condition, and results of operation.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters and our principal research and development, manufacturing, and sales and service facilities are:

Owned Facilities Location	Approximate Size (sq. ft.)	Mortgaged	Use
Plainview, NY	80,000	No	Corporate Headquarters; R&D; Manufacturing; Sales & Service
Somerset, NJ	80,000	No	R&D; Manufacturing; Sales & Service

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Somerset, NJ	38,000	No	R&D; Sales & Service
St. Paul, MN (1)	43,000	Yes	R&D; Manufacturing; Sales & Service
St. Paul, MN (1)	75,000	Yes	Assets held for sale
Yongin-city, South Korea	56,000	No	Sales & Service
Hyeongok-ri, South Korea	15,000	No	R&D; Sales & Service

(1) We consolidated our business into one building, leaving the adjacent building held for sale.

Leased Facilities Location	Approximate Size (sq. ft.)	Lease Expires	Use
Fort Collins, CO	26,000	2018	Held for Sublease
Malvern, PA	4,000	2015	Held for Sublease
Horsham, PA	48,900	2024	R&D; Manufacturing; Sales & Service
Somerset, NJ	14,000	2015	Warehouse
Poughkeepsie, NY	9,400	2017	R&D and Manufacturing
Kingston, NY	36,500	2018	Manufacturing
Fremont, CA	25,400	2015	R&D; Manufacturing; Sales & Service
Shanghai, China	9,900	2017	Sales & Service
Hsinchu City, Taiwan	13,000	2015	Sales & Service

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We lease a small office in Edina, Minnesota for sales and service. Our foreign sales and service subsidiaries lease office space in China, Germany, Malaysia, Philippines, Singapore, South Korea, Thailand, and United Kingdom. Our facilities are adequate to meet our current needs.

Item 3. Legal Proceedings

Environmental

We are aware that petroleum hydrocarbon contamination has been detected in the soil at the site of a facility formerly leased by us in Santa Barbara, California. We have been indemnified for any liabilities we may incur which arise from environmental contamination at the site. Even without consideration of such indemnification, we do not believe that any material loss or expense is probable in connection with any such liabilities. The former owner of the land and building in Santa Barbara, California in which our former Metrology operations were located (which business was sold to Bruker Corporation (Bruker) on October 7, 2010), has disclosed that there are hazardous substances present in the ground under the building. Management believes that the comprehensive indemnification clause that was part of the purchase contract relating to the purchase of such land provides adequate protection against any environmental issues that may arise. We have provided Bruker with similar indemnification as part of the sale.

Non-Environmental

Veeco and certain other parties were named as defendants in a lawsuit filed on April 25, 2013 in the Superior Court of California, County of Sonoma. The plaintiff in the lawsuit, Patrick Colbus, seeks unspecified damages and asserts claims that he suffered burns and other injuries while he was cleaning a molecular beam epitaxy system alleged to have been manufactured by Veeco. The lawsuit alleges, among other things, that the molecular beam epitaxy system was defective and that Veeco failed to adequately warn of the potential risks of the system. We believe this lawsuit is without merit and intend to defend vigorously against the claims. We are unable to predict the outcome of this action or to reasonably estimate the possible loss or range of loss, if any, arising from the claims asserted therein. We believe that, in the event of any recovery by the plaintiff from Veeco, such recovery would be fully covered by our insurance.

We are involved in various other legal proceedings arising in the normal course of our business. We do not believe that the ultimate resolution of these matters will have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

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

Our common stock is quoted on The NASDAQ Stock Market under the symbol VECO. The 2014 and 2013 high and low closing bid prices by quarter are as follows:

	2014		2013	
	High	Low	High	Low
First Quarter	\$ 43.30	\$ 32.18	\$ 38.41	\$ 28.71
Second Quarter	43.63	30.75	42.60	32.23
Third Quarter	37.26	33.22	36.41	33.16
Fourth Quarter	37.72	30.61	38.15	28.44

On February 17, 2015, the closing bid price for our common stock on The NASDAQ Stock Market was \$31.14 and we had 106 shareholders of record.

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We have not paid dividends on our common stock. The Board of Directors will determine future dividend policy based on our consolidated results of operations, financial condition, capital requirements, and other circumstances.

Stock Performance Graph

ASSUMES \$100 INVESTED ON DEC. 31, 2009

ASSUMES DIVIDENDS REINVESTED

FISCAL YEAR ENDING DEC. 31

	2009	2010	2011	2012	2013	2014
Veeco Instruments Inc.	100.00	130.02	62.95	89.26	99.61	105.57
S&P Smallcap 600	100.00	126.31	127.59	148.42	209.74	221.81
PHLX Semiconductor	100.00	115.11	116.95	129.28	169.57	215.25

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RDG MidCap Technology	100.00	124.68	109.02	109.89	157.10	162.20
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The information set forth below should be read in conjunction with the Results of Operations section included in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

	2014	2013	Year ended December 31, 2012		2011	2010
			<i>(in thousands, except per share data)</i>			
Statement of Operations Data:						
Net sales (1)	\$ 392,873	\$ 331,749	\$ 516,020	\$ 979,135	\$ 930,892	
Operating income (loss) (1)	\$ (79,209)	\$ (71,812)	\$ 37,212	\$ 276,259	\$ 303,253	
Income (loss) from continuing operations, net of tax (1)	\$ (66,940)	\$ (42,263)	\$ 26,529	\$ 190,502	\$ 277,176	
Basic income per common share from continuing operations (1)	\$ (1.70)	\$ (1.09)	\$ 0.69	\$ 4.80	\$ 7.02	
Diluted income per common share from continuing operations (1)	\$ (1.70)	\$ (1.09)	\$ 0.68	\$ 4.63	\$ 6.52	

(1) Information presented excludes the results of our discontinued operations.

	2014	2013	December 31, 2012		2011	2010
			<i>(in thousands)</i>			
Balance Sheet Data:						
Cash and cash equivalents	\$ 270,811	\$ 210,799	\$ 384,557	\$ 217,922	\$ 245,132	
Short-term investments	\$ 120,572	\$ 281,538	\$ 192,234	\$ 273,591	\$ 394,180	
Working capital	\$ 387,254	\$ 485,452	\$ 632,197	\$ 587,076	\$ 640,139	
Total assets	\$ 929,455	\$ 947,969	\$ 937,304	\$ 936,063	\$ 1,148,034	
Long-term debt (less current installments)	\$ 1,533	\$ 1,847	\$ 2,138	\$ 2,406	\$ 2,654	
Total equity	\$ 738,932	\$ 780,230	\$ 811,212	\$ 760,520	\$ 762,512	

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

After a multiyear downturn in MOCVD, LED lighting adoption is accelerating and LED fabrication utilization rates are increasing at most of our key customers to levels that will require additional capacity purchases. Our customers are also reporting better market demand for products with LED backlighting. As a result, our MOCVD bookings improved meaningfully in 2014 over 2013. And while quarterly MOCVD customer order patterns fluctuate, we expect multiyear growth for our MOCVD systems. We also continue to invest in our existing MOCVD products and new, innovative technologies to further reduce our customers' cost of ownership and improve their manufacturing capability. But while we are seeing a general improvement in the MOCVD market, competitive pricing pressure, which had a negative effect on our gross margins in 2014 and

2013, is difficult to predict and may continue to depress our margins in the future.

In December 2014, we determined that the incumbent deposition technology for flexible OLED display encapsulation had progressed to satisfy current market requirements and that we were unlikely to receive large orders for our Fast ALD products in the near future. As a result, we plan to lower our spending rate on our ALD products, refocus our research and development efforts on ALD applications in semiconductor and other markets, and continue to assess our flexible OLED market opportunity. The reduction in near-term forecasted orders and cash flows required us to assess our ALD reporting unit for impairment, and we recorded a non-cash impairment charge of \$53.9 million related to goodwill and other long-lived assets for ALD. Also in 2014, we determined that certain performance milestones that would have triggered contingent payments to the original ALD shareholders were not going to be met and as a result we recorded a non-cash gain of \$29.4 million.

In December 2014, we acquired PSP for \$145.5 million, net of cash acquired, and entered the market for single wafer wet etch, clean, and surface preparation equipment targeting high growth segments in advanced packaging, MEMS, and compound semiconductor. For the period from the acquisition date through December 31, 2014, we generated \$7.9 million of net sales

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and incurred a loss from operations before tax of \$3.0 million. The loss from operations was attributable to the write-up of existing inventory on the date of acquisition to fair value, which eliminated the gross margin on the sale of those systems.

We are seeing some signs of improved conditions in our HDD market as cloud related expansion continues to demand higher capacity drives. And although we have started to see signs of capacity constraints in some process areas and there was an increase in orders for some of our equipment at the end of 2014, low growth is expected to continue. Future demand for our systems sold in the HDD industry is unclear and orders are expected to fluctuate from quarter to quarter.

Results of Operations**Years Ended December 31, 2014 and 2013**

The following table presents revenue and expense line items reported in our Consolidated Statements of Operations for fiscal 2014 and 2013 and the period-over-period dollar and percentage changes for those line items. Our results of operations are reported as one business segment.

	For the year ended				Dollar and Percentage Change	
	December 31,				Period to Period	
	2014		2013			
			<i>(dollars in thousands)</i>			
Net sales	\$ 392,873	100.0%	\$ 331,749	100.0%	\$ 61,124	18.4%
Cost of sales	257,991	<u>65.7%</u>	228,607	68.9%	29,384	12.9%
Gross profit	134,882	34.3%	103,142	31.1%	31,740	30.8%
Operating expenses, net:						
Selling, general, and administrative	89,760	22.8%	85,486	25.8%	4,274	5.0%
Research and development	81,171	20.7%	81,424	24.5%	(253)	(0.3)%
Amortization	13,146	3.3%	5,527	1.7%	7,619	137.9%
Restructuring	4,394	1.1%	1,485	0.4%	2,909	195.9%
Asset impairment	58,170	14.8%	1,220	0.4%	56,950	4,668.0%
Changes in contingent consideration	(29,368)	(7.5)%	829	0.2%	(30,197)	*
Other, net	(3,182)	(0.8)%	(1,017)	(0.3)%	(2,165)	212.9%
Total operating expenses, net	214,091	54.5%	174,954	52.7%	39,137	22.4%
Operating income (loss)	(79,209)	(20.2)%	(71,812)	(21.6)%	(7,397)	10.3%
Interest income (expense), net	855	<u>0.2%</u>	602	<u>0.2%</u>	253	42.0%
Income (loss) before income taxes	(78,354)	(19.9)%	(71,210)	(21.5)%	(7,144)	10.0%
Income tax provision (benefit)	(11,414)	(2.9)%	(28,947)	(8.7)%	17,533	(60.6)%
Income (loss) from continuing operations	\$ (66,940)	(17.0)%	\$ (42,263)	(12.7)%	\$ (24,677)	58.4%

* Not Meaningful

Net Sales

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The following is an analysis of sales by region:

	December 31,				Dollar and Percentage Change	
	2014		2013		Period to Period	
Regional Analysis	<i>(dollars in thousands)</i>					
United States	\$ 44,060	11.2%	\$ 57,609	17.4%	\$ (13,549)	(23.5)%
Asia Pacific	311,182	79.2%	252,199	76.0%	58,983	23.4%
EMEA(1) and other	37,631	9.5%	21,941	6.6%	15,690	71.5%
Total	\$ 392,873	100.0%	\$ 331,749	100.0%	\$ 61,124	18.4%

(1) Consists of Europe, the Middle East, and Africa

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Total sales increased in 2014 from 2013 primarily due to an increase in the volume of MOCVD systems, largely due to customers increasing their manufacturing capacity. Pricing was not a significant driver of the change in total sales. Total sales also increased as a result of our acquisition of PSP, which contributed \$7.9 million to 2014 results. The increase in sales was partially offset by a decline in volume of our systems sold to data storage customers, primarily due to our customers' unwillingness to make technology investments given the overcapacity in the hard drive industry. By region, sales decreased in the United States in 2014 primarily due to a decrease in purchases by our data storage customers. In Asia Pacific, sales increased as a result of MOCVD sales growth in Korea and China. In EMEA, sales increased as a result of growth in both MOCVD and ion beam and other data storage system sales. We believe there will continue to be year-to-year variations in the geographic distribution of sales in the future.

Between 2014 and 2013, total orders increased \$178.8 million, or 54%, to \$510.0 million. The increase is primarily attributable to a 74% increase in orders of our MOCVD systems largely as customers in China, Europe, and Korea begin to add manufacturing capacity. Ion beam and other data storage system and service orders increased 5% between 2014 and 2013, but given the slow growth and overcapacity in the hard drive industry, we expect demand to be weak as customers continue to only make select technology purchases.

One of the performance measures we use as a leading indicator of the business is the book-to-bill ratio. The ratio is defined as orders recorded in a given period divided by revenue recognized in the same period. A ratio greater than one indicates we are adding orders faster than we are recognizing revenue. In 2014, the ratio was 1.3, an improvement over 2013, when it was 1.0. Our backlog as of December 31, 2014 was \$286.7 million, which was higher than the ending backlog as of December 31, 2013 of \$143.3 million. As of December 31, 2014, \$23.4 million of the backlog was from our acquisition of PSP. During the year ended December 31, 2014 we recorded backlog adjustments of approximately \$1.6 million relating to orders that no longer met our bookings criteria. For certain sales arrangements we require a deposit for a portion of the sales price prior to manufacturing a system for a customer. As of December 31, 2014 and 2013, we had customer deposits of \$73.0 million and \$27.5 million, respectively.

Gross Profit

	For the year ended December 31,		Dollar and Percentage Change Period to Period	
	2014	2013		
	<i>(dollars in thousands)</i>			
Gross profit - Total	\$ 134,882	\$ 103,142	\$ 31,740	30.8%
Gross margin	34.3%	31.1%		

Gross margins increased from the prior year primarily due to higher MOCVD sales volume, a favorable mix of products, and favorable warranty and service spending. This was partially offset by our acquisition of PSP, whereby we wrote up existing inventory on the date of acquisition to fair value, unfavorable overhead rates, primarily driven by our ALD business, and declines in margins from our ion beam and other data storage system sales that resulted from reduced sales volume, higher inventory reserves, and unfavorable overhead rates.

Selling, general, and administrative

Selling, general, and administrative expenses increased primarily due to an increase in personnel and personnel-related expenses, including an increase in share-based compensation of \$3.5 million as well as additional costs from our ALD business, which was acquired in the fourth

quarter of 2013. Our acquisition of PSP in the fourth quarter of 2014 also contributed to the increase in selling, general, and administrative expenses, including \$3.2 million of acquisition related costs. Partially offsetting the increase in selling, general, and administrative expense was a reduction in third party professional fees associated with an accounting review, which was completed in the fourth quarter of 2013.

Research and development

We continue to invest in research and development of new products and enhancements to existing products and spent \$81.2 million and \$81.4 million in 2014 and 2013, respectively. In 2014, we spent additional amounts on our ALD technology as compared with 2013, offset by a reduction in spending in our other product lines. We continue to focus our research and development expenses on projects in areas we anticipate to be high-growth. We selectively funded these product development activities which resulted in lower professional consulting expense, as well as reduced spending for project materials and personnel and personnel-related costs.

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Amortization expense

Amortization expense increased primarily due to additional amortization associated with intangible assets acquired as part of our acquisition of ALD during the fourth quarter of 2013. We expect to incur additional amortization expense in 2015 as a result of intangible assets acquired as part of our acquisition of PSP during the fourth quarter of 2014, partially offset by the elimination of amortization of certain ALD intangible assets that have been either impaired or fully amortized in the fourth quarter of 2014.

Restructuring expense

During 2014, we announced the closing of our Ft. Collins, Colorado and Camarillo, California facilities. Business activities formally conducted at these sites have been transferred to our Plainview, New York facility. In addition, we responded to the challenging business environment we were facing, particularly for sales to customers in the data storage industry, and reduced headcount by approximately 90 employees. As a result of these actions, we recorded \$4.4 million in personnel severance and related costs and facility closing costs.

During 2013, we recorded \$1.5 million in personnel severance and related costs principally resulting from the transition from a direct sales presence in Japan to a distributor model and the consolidation of certain sales and administrative functions.

Asset impairment

During 2014, based on a combination of factors, including our determination that incumbent deposition technology for flexible OLED display encapsulation had progressed to satisfy current market requirements, we believed that there were sufficient indicators that required an interim asset impairment analysis on our ALD reporting unit. As a result of our analysis, we recorded non-cash impairment charges of \$28.0 million related to goodwill and \$25.9 million related to other long-lived assets, including \$17.4 million related to customer relationships, \$4.8 million related to in-process research and development, and \$3.6 million related to certain tangible assets. In addition, during 2014, we recognized \$4.3 million of asset impairments on tangible assets held for sale, including certain lab tools and a vacant building and land. During 2013, we recognized asset impairment charges of \$1.2 million on tangible assets held for sale, including certain lab tools.

Changes in Contingent Consideration

Included in our agreement to acquire ALD in the fourth quarter of 2013 were performance milestones that could trigger contingent payments to the original selling shareholders. During the year ended December 31, 2013, the first milestone was achieved, and we paid the former shareholders \$5.0 million and increased the estimated fair value of the remaining contingent payments by \$0.8 million. During 2014, we determined that all of the remaining performance milestones were not met, reversed the fair value of the liability, and recorded a non-cash gain of \$29.4 million.

Other, net

During 2014, we completed our plan to liquidate our subsidiary in Japan, since we moved to a distributor model to serve our customers in that region. As a result of the liquidation, we reclassified a cumulative translation gain of \$3.1 million from Other Comprehensive Income to Other, net on the Consolidated Statements of Operations.

Income Taxes

The 2014 net benefit for income taxes included a \$13.4 million tax benefit relating to our domestic operations offset by a \$2.0 million tax provision relating to our foreign operations. The 2013 net benefit for income taxes included a \$32.4 million benefit relating to our domestic operations offset by a \$3.5 million provision relating to our foreign operations. Our 2014 effective tax rate is lower than the statutory rate primarily related to a \$4.9 million tax benefit associated with our successful negotiation of an incentive tax rate in one of our foreign subsidiaries, a \$2.3 million reversal of uncertain tax positions as a result of concluding the 2010 IRS examination, and the recognition of only a portion of our U.S. deferred tax assets on a more-likely-than-not basis with respect to current year pre-tax operating losses. We maintain a valuation allowance on our net domestic deferred tax assets.

Table of Contents**Years Ended December 31, 2013 and 2012**

The following table presents revenue and expense line items reported in our Consolidated Statements of Operations for fiscal 2013 and 2012 and the period-over-period dollar and percentage changes for those line items.

	For the year ended				Dollar and Percentage Change	
	December 31,		December 31,		Period to Period	
	2013		2012			
	<i>(dollars in thousands)</i>					
Net sales	\$ 331,749	100.0%	\$ 516,020	100.0%	\$ (184,271)	(35.7)%
Cost of sales	228,607	68.9%	300,887	58.3%	(72,280)	(24.0)%
Gross profit	103,142	31.1%	215,133	41.7%	(111,991)	(52.1)%
Operating expenses, net:						
Selling, general, and administrative	85,486	25.8%	73,110	14.2%	12,376	16.9%
Research and development	81,424	24.5%	95,153	18.4%	(13,729)	(14.4)%
Amortization	5,527	1.7%	4,908	1.0%	619	12.6%
Restructuring	1,485	0.4%	3,813	0.7%	(2,328)	(61.1)%
Asset impairment	1,220	0.4%	1,335	0.3%	(115)	(8.6)%
Changes in contingent consideration	829	0.2%		0.0%	829	*
Other, net	(1,017)	(0.3)%	(398)	(0.1)%	(619)	155.5%
Total operating expenses, net	174,954	52.7%	177,921	34.5%	(2,967)	(1.7)%
Operating income (loss)	(71,812)	(21.6)%	37,212	7.2%	(109,024)	*
Interest income (expense), net	602	0.2%	974	0.2%	(372)	(38.2)%
Income (loss) before income taxes	(71,210)	(21.5)%	38,186	7.4%	(109,396)	*
Income tax provision (benefit)	(28,947)	(8.7)%	11,657	2.3%	(40,604)	*
Income (loss) from continuing operations	\$ (42,263)	(12.7)%	\$ 26,529	5.1%	\$ (68,792)	*

* Not Meaningful

Net Sales

The following is an analysis of sales by region:

Regional Analysis	December 31,				Dollar and Percentage Change	
	2013		2012		Period to Period	
	<i>(dollars in thousands)</i>					
United States	\$ 57,609	17.4%	\$ 83,317	16.1%	\$ (25,708)	(30.9)%
Asia Pacific	252,199	76.0%	390,995	75.8%	(138,796)	(35.5)%
EMEA(1) and other	21,941	6.6%	41,708	8.1%	(19,767)	(47.4)%
Total	\$ 331,749	100.0%	\$ 516,020	100.0%	\$ (184,271)	(35.7)%

(1) Consists of Europe, the Middle East, and Africa

Total sales decreased in 2013 from 2012 primarily due to lower MOCVD sales as a result of continued industry manufacturing overcapacity and our customers' hesitancy to make new investments as well as lower sales of systems to data storage customers due to customer fabrication facility overcapacity and weak hard drive demand. Our data storage system sales in 2012 were favorably impacted by the replacement of equipment at one of our customer's sites that was damaged by floods in Thailand. By region, net sales decreased in Asia Pacific primarily due to a significant decrease in MOCVD sales in China resulting from industry manufacturing overcapacity. Net sales in the United States and EMEA also decreased due to reduced end-market demand resulting from the weak global economy. We believe that there will continue to be year-to-year variations in the geographic distribution of sales.

Between 2012 and 2013, total orders decreased \$60.3 million, or 15%, from \$391.9 million to \$331.6 million. The decrease was primarily attributable to a 22% decrease in MOCVD system orders due to industry manufacturing overcapacity. Since

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hitting a peak in the second quarter of 2011, our orders have slowed dramatically. While ion beam and other data storage system orders increased 8% between 2012 and 2013, hard drive growth is expected to be slow, and our customers have excess manufacturing capacity and have been making only select technology purchases. We continue to experience weak overall market conditions due to overcapacity in all of our markets.

Our book-to-bill ratio in 2013 was 1.0, which was an improvement over 2012, when it was 0.8. Our backlog as of December 31, 2013 was \$143.3 million, slightly lower than the ending backlog at December 31, 2012 of \$150.2 million. During the year ended December 31, 2013, we recorded backlog adjustments of approximately \$6.8 million, consisting of a reduction of \$5.6 million related to orders that no longer met our bookings criteria and \$1.2 million in foreign currency translation adjustments. For certain sales arrangements we require a deposit for a portion of the sales price prior to manufacturing a system for a customer. As of December 31, 2013 and 2012, we had customer deposits of \$27.5 million and \$32.7 million, respectively.

Gross Profit

	For the year ended December 31,		Dollar and Percentage Change Period to Period	
	2013	2012		
	<i>(dollars in thousands)</i>			
Gross profit - Total	\$ 103,142	\$ 215,133	\$ (111,991)	(52.1)%
Gross margin	31.1%	41.7%		

Our gross margins decreased in 2013 compared with 2012 primarily due to lower average selling prices, reduced volume, and fewer final acceptances partially offset by cost reductions associated with reduced volumes and reduced expenses in 2013 for slow moving inventory items.

Selling, general, and administrative

Selling, general, and administrative expenses increased primarily from third party professional and consulting fees associated with our accounting review that began in 2012 and which was completed in October 2013, partially offset by a reduction in bonus and profit sharing expenses and increased cost control measures put into place in response to weak market conditions, which resulted in lower personnel-related costs and discretionary expenses. The addition of our ALD business in the fourth quarter of 2013 also contributed to an increase in our selling, general, and administrative expenses.

Research and development

Research and development expense decreased as we sharpened our focus on product development in areas of anticipated high-growth. We selectively funded certain product development activities which resulted in reduced spending for project materials and professional consultants as well as lower personnel and personnel-related costs.

Amortization expense

Amortization expense increased primarily due to additional amortization associated with intangible assets acquired as part of our acquisition of ALD during the fourth quarter of 2013, partially offset by certain intangible assets becoming fully amortized.

Restructuring expense

During 2013, we recorded \$1.5 million in personnel severance and related costs principally resulting from the transition from a direct sales presence in Japan to a distributor model and the consolidation of certain sales and administrative functions. During 2012, we took measures to improve profitability, including a reduction in discretionary expenses, realignment of our senior management team, and the consolidation of certain sales and administrative functions. As a result of these actions, we reduced headcount by approximately 50 employees and recorded a restructuring charge of \$3.8 million of personnel severance and related costs.

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During 2013, we recorded asset impairment charges of \$0.9 million related to certain lab tools we are holding for sale and \$0.3 million related to certain other tangible assets. During 2012, we recorded an asset impairment charge related to a license agreement.

Income Taxes

The 2013 net benefit for income taxes included a \$3.5 million provision relating to our foreign operations and a \$32.4 million benefit relating to our domestic operations. The 2012 provision for income taxes included \$8.3 million relating to our foreign operations and \$3.4 million relating to our domestic operations. Our 2013 effective tax rate is higher than the statutory rate as a result of the jurisdictional mix of earnings in our foreign locations, an income tax benefit related to the generation of current year research and development tax credits, and legislation enacted in the first quarter of 2013 which extended the Federal Research and Development Credit for both the 2012 and 2013 tax years.

During the fourth quarter of 2012, we determined that we may not meet the criteria required to receive a certain incentive tax rate pursuant to a negotiated tax holiday in one foreign jurisdiction. Although we are continuing to negotiate the criteria for the incentive, for financial reporting purposes we have recorded additional tax provisions of \$0.9 million and \$4.0 million in 2013 and 2012, respectively, totaling \$4.9 million, which represents the cumulative effect of calculating the tax provision using the incentive tax rate as compared to the foreign country's statutory rate. If we successfully renegotiate the incentive criteria, this additional tax provision could be reversed as a future benefit in the period in which the negotiations are finalized.

During 2012 we recorded an income tax expense of \$1.9 million related to discontinued operations and a current tax benefit of \$2.1 million related to equity-based compensation, neither of which occurred in 2013.

Liquidity and Capital Resources

Our cash and cash equivalents, short-term investments, and restricted cash were as follows:

	2014	December 31, (in thousands)	2013
Cash and cash equivalents	\$ 270,811	\$	210,799
Short-term investments	120,572		281,538
Restricted cash	539		2,738
Total	\$ 391,922	\$	495,075

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A portion of our cash and cash equivalents is held by our subsidiaries throughout the world, frequently in each subsidiary's respective functional currency, which may not be the U.S. dollar. At December 31, 2014 and 2013, cash and cash equivalents of \$220.5 million and \$150.6 million, respectively, were held outside the United States. It is our current intention to permanently reinvest the cash and cash equivalent balances held in Singapore, China, Taiwan, South Korea, and Malaysia, and our current forecasts do not require repatriation of these funds back to the United States. At December 31, 2014, we had \$125.2 million in cash held outside the United States on which we would have to pay significant U.S. income taxes to repatriate. Additionally, local government regulations may restrict our ability to move cash balances under certain circumstances. We currently do not expect such regulations and restrictions to impact our ability to make acquisitions, pay vendors, or conduct operations. We believe that our projected cash flow from operations, combined with our cash and short term investments, will be sufficient to meet our projected working capital requirements, contractual obligations, and other cash flow needs for the next twelve months.

At December 31, 2014 and 2013, our short-term investments were held in the United States and restricted cash was in Germany, which serves as collateral for bank guarantees that provide financial assurance that we will fulfill certain customer or lease obligations. This cash is held in custody by the issuing bank and is restricted as to withdrawal or use while the related bank guarantees are outstanding.

A summary of the cash flow activity for the year ended December 31, 2014 and 2013 was as follows:

Table of Contents*Cash Flows from Operating Activities*

	2014	December 31, <i>(in thousands)</i>	2013
Net loss	\$ (66,940)	\$	(42,263)
Non-cash items:			
Depreciation and amortization	24,573		18,425
Deferred income taxes	(11,330)		(12,264)
Share-based compensation	18,813		13,130
Impairment of long-lived assets	58,170		1,220
Change in contingent consideration	(29,368)		829
Other	(6,505)		1,179
Changes in operating assets and liabilities	54,656		20,471
Net cash provided by operating activities	\$ 42,069	\$	727

Net cash provided by operations was \$42.1 million in fiscal year 2014, and was due to the net loss of \$66.9 million, adjustments for non-cash items of \$54.3 million, and an increase in cash flow from operating activities due to changes in operating assets and liabilities of \$54.7 million. The changes in operating assets and liabilities was largely attributable to an increase in customer deposits and deferred revenue and income taxes payable, net, offset by an increase in accounts receivable.

Net cash provided by operations was \$0.7 million in fiscal year 2013, and was due to the net loss of \$42.3 million, adjustments for non-cash items of \$22.5 million, and an increase in cash flow from operating activities due to changes in operating assets and liabilities of \$20.5 million. The changes in operating assets and liabilities was largely attributable to decreases in accounts receivable offset by decreases in customer deposits and deferred revenue and income taxes payable, net.

Cash Flows from Investing Activities

	2014	December 31, <i>(in thousands)</i>	2013
Acquisitions of businesses, net of cash acquired	\$ (144,069)	\$	(71,488)
Changes in investments, net	160,539		(89,454)
Capital expenditures	(15,588)		(9,174)
Proceeds from sale of lab tools	9,259		4,440
Other	(2,038)		(2,380)
Net cash provided by (used in) investing activities	\$ 8,103	\$	(168,056)

The cash provided by investing activities in 2014 was primarily attributable to net sales of marketable securities and sales of lab tools, partially offset by our purchase of PSP, net of cash acquired, and other capital expenditures. Our cash used in investing activities in 2013 was primarily driven by our purchase of ALD, net of cash acquired, net purchases of short-term investments, and other capital expenditures. Refer to Note 5, Business Combinations for additional information on the acquisitions of PSP and ALD.

Cash Flows from Financing Activities

During 2014, cash provided by financing activities of \$9.7 million was primarily attributable to net cash received from stock activity related to employee share-based compensation programs. During 2013, cash used in financing activities of \$5.8 million was primarily attributable to \$5.0 million related to the payment of a portion of the contingent consideration from our acquisition of ALD and net cash payments from stock activity related to employee share-based compensation programs. Refer to Note 5, *Business Combinations* for additional information on the contingent consideration related to our ALD acquisition.

Table of Contents*Contractual Obligations and Commitments*

We have commitments under certain contractual arrangements to make future payments for goods and services. These contractual arrangements secure the rights to various assets and services to be used in the future in the normal course of business. We expect to fund these contractual arrangements with cash generated from operations in the normal course of business.

The following table summarizes our contractual arrangements at December 31, 2014 and the timing and effect that those commitments are expected to have on our liquidity and cash flow in future periods. The effect of unrecognized tax benefits, which total \$1.4 million at December 31, 2014, have been excluded from the table since the Company is unable to reasonably estimate the period of cash settlement with the respective tax authorities.

	Total	Less than 1 year	Payments due by period		
			1 3 years <i>(in thousands)</i>	3 5 years	More than 5 years
Long-term debt	\$ 1,847	\$ 314	\$ 708	\$ 825	\$
Interest on debt	395	135	190	70	
Operating leases	11,188	2,322	4,416	1,750	2,700
Bank guarantees	45,458	45,458			
Purchase commitments(1)	112,421	112,421			
Total	\$ 171,309	\$ 160,650	\$ 5,314	\$ 2,645	\$ 2,700

(1) Purchase commitments are primarily for inventory used in manufacturing our products. We generally do not enter into purchase commitments extending beyond one year. We have \$12.7 million of offsetting supplier deposits against these purchase commitments as of December 31, 2014.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on our financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources other than operating leases, bank guarantees, and purchase commitments disclosed in the preceding *Contractual Obligations and Commitments* table.

Application of Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements require a high degree of judgment, either in the application and interpretation of existing accounting literature or in the development of estimates that affect the reported amounts of assets, liabilities, revenues, and expenses. On an ongoing basis, we evaluate our estimates and judgments based on historical experience as well as other factors that we believe to be reasonable under the circumstances. The results of our evaluation form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other

sources. These estimates may change in the future if underlying assumptions or factors change, and actual results may differ from these estimates.

We consider the following significant accounting policies to be critical because of their complexity and the high degree of judgment involved in implementing them.

Revenue Recognition

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the selling price is fixed or determinable, collectability is reasonably assured, and, for system sales, we have received customer acceptance or we have otherwise objectively demonstrated that the delivered system meets all of the agreed-to customer specifications. Each sales arrangement may contain commercial terms that differ from other arrangements. In addition, we frequently enter into contracts that contain multiple deliverables. Judgment is required to

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properly identify the accounting units of the multiple deliverable transactions and to determine the manner in which revenue should be allocated among the accounting units. Moreover, judgment is used in interpreting the commercial terms and determining when all criteria have been met in order to recognize revenue in the appropriate accounting period. The maximum revenue we recognize on a delivered element is limited to the amount that is not contingent upon the delivery of additional items. While changes in the allocation of the estimated sales price between the units of accounting will not affect the amount of total revenue recognized for a particular sales arrangement, any material changes in these allocations could impact the timing of revenue recognition, which could have a material effect on our financial condition and results of operations. We generally recognize revenue related to sales of components and spare parts upon shipment. We generally recognize revenue related to maintenance and service contracts ratably over the applicable contract term. See Note 1, *Significant Accounting Policies*, in the Notes to the Consolidated Financial Statements for a description of our revenue recognition policy.

Inventory Valuation

Inventories are stated at the lower of cost or market using standard costs that approximate actual costs on a first-in, first-out basis. Each quarter we assess the valuation and recoverability of all inventories: materials (raw materials, spare parts, and service inventory); work-in-process; and finished goods. Obsolete inventory or inventory in excess of our estimated usage requirements is written down to its estimated market value if less than cost. We evaluate usage requirements by analyzing historical and anticipated demand, and anticipated demand is estimated based upon current economic conditions, utilization requirements related to current backlog, current sales trends, and other qualitative factors. Unanticipated changes in demand for our products may require a write down of inventory that could materially affect our operating results.

Warranty Costs

Our warranties are typically valid for one year from the date of final acceptance. We estimate the costs that may be incurred under the warranty we provide and record a liability in the amount of such costs at the time the related revenue is recognized. Estimated warranty costs are determined by analyzing specific product and historical configuration statistics and regional warranty support costs. Our warranty obligation is affected by product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Unforeseen component failures or exceptional component performance can also result in changes to warranty costs. If actual warranty costs differ substantially from our estimates, revisions to the estimated warranty liability would be required.

Goodwill and Intangible Assets

Goodwill is tested for impairment at least annually in the fourth quarter of our fiscal year. We may first perform a qualitative assessment of whether it is more likely than not that a reporting unit's fair value is less than its carrying amount, and, if so, we then apply the two-step impairment test. The two-step impairment test first compares the fair value of our reporting units to their carrying amount (i.e., book value). If the fair value of the reporting unit exceeds its carrying amount, goodwill is not impaired and we are not required to perform further testing. If the carrying amount of the reporting unit exceeds its fair value, we determine the implied fair value of the reporting unit's goodwill and if the carrying amount of the reporting unit's goodwill exceeds its implied fair value, then we record an impairment loss equal to the difference.

We determine the fair value of our reporting units based on a discounted future cash flow approach since market prices are not available for our reporting units. Under this approach, we calculate the fair value of a reporting unit based on the present value of estimated future cash flows.

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Determining the fair value of a reporting unit involves the use of significant estimates and assumptions. These estimates and assumptions include the revenue growth rates and operating profit margins that are used to project future cash flows, working capital requirements, residual growth rates, discount rates, and future economic and market conditions. We base our fair value estimates on assumptions that are consistent with information used by the business for planning purposes and that we believe to be reasonable; however, actual future results could differ from those estimates. Changes in judgments could materially affect the value of the reporting unit. We reconcile the aggregate fair value of our reporting units to our adjusted market capitalization as a supporting calculation. The adjusted market capitalization is calculated by multiplying the average share price of our common stock for the last ten trading days prior to the measurement date by the number of outstanding common shares and adding a control premium.

The carrying values of indefinite-lived intangible assets are reviewed for recoverability on a quarterly basis. The facts and circumstances considered include the recoverability of the cost of other intangible assets from future cash flows to be derived from the use of the asset. It is not possible for us to predict the likelihood of any possible future impairments or, if such an impairment were to occur, the magnitude of any impairment.

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Intangible assets with finite useful lives, including purchased technology, customer-related intangible assets, patents, trademarks, covenants not-to-compete, and software licenses, are subject to amortization over the expected period of economic benefit to us. We evaluate whether events or circumstances have occurred that warrant a revision to the remaining useful lives of intangible assets. In cases where a revision is deemed appropriate, the remaining carrying amounts of the intangible assets are amortized over the revised remaining useful life.

Accounting for Business Combinations

The allocation of the purchase price for acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the identifiable tangible and intangible assets acquired, including in-process research and development, and liabilities assumed based on their respective fair values. The estimates we make include expected cash flows, expected cost savings, and the appropriate weighted average cost of capital. We complete these assessments as soon as practical after the acquisition closing dates. Any excess of the purchase price over the estimated fair values of the identifiable net assets acquired is recorded as goodwill.

Fair Value of Financial Instruments

The measurement of fair value for our financial instruments is based on the authoritative guidance which establishes a fair value hierarchy that is based on three levels of inputs and requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. See Note 3, Fair Value Measurements, in the Notes to the Consolidated Financial Statements for additional information.

Income Taxes

We are required to estimate our income taxes in each of the jurisdictions in which we operate. Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as the tax effect of carry forwards. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. Realization of our net deferred tax assets is dependent on future taxable income.

We recognize the effect of income tax positions only if those positions are more likely than not of being sustained. We reflect changes in recognition or measurement in a period in which the change in judgment occurs. We record interest and penalties related to uncertain tax positions in income tax expense.

The calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with our expectations could have a material impact on our results of operations and financial condition.

Accounting for Share-Based Compensation

We account for stock-based awards granted to employees for services based on the fair value of those awards. We use the Black-Scholes option-pricing model to compute the estimated fair value of option awards. The Black-Scholes model includes assumptions regarding expected volatility, expected term, and risk-free interest rates. These assumptions reflect our best estimates, but these items involve uncertainties based on market and other conditions outside of our control. As a result, if other assumptions had been used, stock-based compensation expense could have been materially affected. Furthermore, if different assumptions are used in future periods, stock-based compensation expense could be materially affected in future years.

We have granted performance share awards to senior executives where the number and, in some instances, the timing of the vesting of restricted shares ultimately received by the senior executives depends on our performance, as measured against specified targets. We reevaluate the expected target achievement each reporting period until the conclusion of the performance period and recognize the impact of any change in estimate in the period of change.

We estimate forfeitures of share based awards using our historical experience, which is adjusted over the requisite service period based on actual forfeitures.

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Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09: *Revenue from Contracts with Customers*. The amendments in this ASU require that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard outlines a five-step model to make the revenue recognition determination and requires new financial statement disclosures. The standard is effective for interim and annual periods beginning after December 15, 2016 and allows entities to choose among different transition alternatives. We are evaluating the impact of adopting the standard on our consolidated financial statements and related financial statement disclosures and we have not yet determined which method of adoption will be selected.

We have evaluated other pronouncements recently issued but not yet adopted, and we do not believe the adoption of these pronouncements will have a material impact on the consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Our exposure to market rate risk for changes in interest rates primarily relates to our investment portfolio. We centrally manage our investment portfolios considering investment opportunities and risks, tax consequences, and overall financing strategies. Our investment portfolio includes fixed-income securities with a fair value of approximately \$120.6 million as of December 31, 2014. These securities are subject to interest rate risk and, based on our investment portfolio as of December 31, 2014, a 100 basis point increase in interest rates would result in a decrease in the fair value of the portfolio of \$0.7 million. While an increase in interest rates may reduce the fair value of the investment portfolio, we will not realize the losses in the Consolidated Statements of Operations unless the individual fixed-income securities are sold prior to recovery or the loss is determined to be other-than-temporary.

Currency Exchange Risk

We conduct business on a worldwide basis and, as such, a portion of our revenues, earnings, and net investments in foreign affiliates is exposed to changes in currency exchange rates. The economic impact of currency exchange rate movements is complex because such changes are often linked to variability in real growth, inflation, interest rates, governmental actions, and other factors. These changes, if material, could cause us to adjust our financing and operating strategies. Consequently, isolating the effect of changes in currency does not incorporate these other important economic factors.

We manage our risks and exposures to currency exchange rates through the use of derivative financial instruments (e.g., forward contracts). We only use derivative financial instruments in the context of hedging and do not use them for speculative purposes. During fiscal 2014 and 2013, we did not designate our foreign exchange derivatives as hedges. Accordingly, all foreign exchange derivatives are recorded in our Consolidated Balance Sheets at fair value and changes in fair value from these contracts are recorded in Other, net in our Consolidated Statements of

Operations.

Our net sales to customers located outside of the United States represented approximately 89%, 83% and 84% of our total net sales in 2014, 2013 and 2012, respectively. We expect that net sales to customers outside the United States will continue to represent a large percentage of our total net sales. Our net sales denominated in currencies other than the U.S. dollar represented approximately 8%, 4%, and 4% of total net sales in 2014, 2013, and 2012, respectively.

A 10% change in foreign exchange rates would have an immaterial impact on the consolidated results of operations.

Item 8. Financial Statements and Supplementary Data

Our Consolidated Financial Statements are listed in the Index to Consolidated Financial Statements and Financial Statement Schedule filed as part of this Form 10-K.

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

None.

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Item 9A. Controls and Procedures

Management's Report on Internal Control Over Financial Reporting

Our principal executive and financial officers have evaluated and concluded that our disclosure controls and procedures are effective as of December 31, 2014. The disclosure controls and procedures are designed to ensure that the information required to be disclosed in this report filed under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and is accumulated and communicated to our principal executive and financial officers as appropriate to allow timely decisions regarding required disclosure.

Our principal executive and financial officers are responsible for establishing and maintaining adequate internal control over financial reporting, which is a process designed and put into effect 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. Using the criteria established in the Internal Control - Integrated Framework (2013) published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), Management has evaluated, assessed, and concluded that internal control over financial reporting is effective as of December 31, 2014.

We acquired Solid State Equipment Holdings LLC (now known as Veeco Precision Surface Processing (PSP)) during the quarter ended December 31, 2014, and the results of PSP from the acquisition date through December 31, 2014 are included in our 2014 consolidated financial statements. The results of PSP constituted 18 percent and 20 percent of total and net assets, respectively, as of December 31, 2014, and 2 percent and 4 percent of net sales and net loss before taxes, respectively, for the year then ended. We have excluded PSP from our annual assessment of and conclusion on the effectiveness of our internal control over financial reporting.

Changes in Internal Control Over Financial Reporting

During the quarter ended December 31, 2014, there were no changes in internal control that have materially affected or are reasonably likely to materially affect internal control over financial reporting.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of

Veeco Instruments Inc.

We have audited Veeco Instruments Inc.'s (the "Company") internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). 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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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.

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.

As indicated in the accompanying Management's Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Solid State Equipment Holdings LLC, which is included in the 2014 consolidated financial statements of Veeco Instruments Inc. and constituted 18 percent and 20 percent of total and net assets, respectively, as of December 31, 2014 and 2 percent and 4 percent of net sales and net loss, respectively, for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Solid State Equipment Holdings LLC.

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In our opinion, Veeco Instruments Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Veeco Instruments Inc. as of December 31, 2014 and 2013, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2014 and our report dated February 24, 2015 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Jericho, New York
February 24, 2015

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Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this Item that will appear under the headings Corporate Governance, Executive Officers, and Section 16(a) Reporting Compliance in the definitive proxy statement to be filed with the SEC relating to our 2015 Annual Meeting of Stockholders is incorporated herein by reference.

We have adopted a Code of Ethics for Senior Officers (the Code) which applies to our chief executive officer, principal financial officer, principal accounting officer, and persons performing similar functions. A copy of the Code can be found on our website (www.veeco.com). We intend to disclose on our website the nature of any future amendments to and waivers of the Code that apply to the chief executive officer, principal financial officer, principal accounting officer or persons performing similar functions. We have also adopted a Code of Business Conduct which applies to all of our employees, including those listed above, as well as to our directors. A copy of the Code of Business Conduct can be found on our website (www.veeco.com). The website address above is intended to be an inactive, textual reference only. None of the material on this website is part of this report.

Item 11. Executive Compensation

Information required by this Item that will appear under the heading Executive Compensation in the definitive proxy statement to be filed with the SEC relating to our 2015 Annual Meeting of Stockholders is incorporated herein by reference.

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

Information required by this Item that will appear under the headings Security Ownership of Certain Beneficial Owners and Management and Equity Compensation Plan Information in the definitive proxy statement to be filed with the SEC relating to our 2015 Annual Meeting of Stockholders is incorporated herein by reference.

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

Information required by this Item that will appear under the headings "Certain Relationships and Related Transactions" and "Independence of the Board of Directors" in the definitive proxy statement to be filed with the SEC relating to our 2015 Annual Meeting of Stockholders is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

Information required by this Item that will appear under the heading "Proposal 3 - Ratification of the Appointment of Ernst & Young LLP as Independent Registered Public Accounting Firm" in the definitive proxy statement to be filed with the SEC relating to our 2015 Annual Meeting of Stockholders is incorporated herein by reference.

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- (a) (1) The Registrant's financial statements together with a separate table of contents are annexed hereto
- (2) Financial Statement Schedules are listed in the separate table of contents annexed hereto.
- (3) Exhibits

Unless otherwise indicated, each of the following exhibits has been previously filed with the Securities and Exchange Commission by the Company under File No. 0-16244.

Exhibit Number	Exhibit Description	Form	Incorporated by Reference		Filed or Furnished Herewith
			Exhibit	Filing Date	
2.1	Securities Purchase Agreement, dated December 4, 2014, by and among Solid State Equipment Holdings LLC, certain securityholders thereof, Veeco Instruments Inc. and certain other parties thereto.				X
2.2	Agreement and Plan of Merger, dated September 18, 2013, by and among Veeco, Veeco Wyoming Inc., Synos Technology, Inc., certain stockholders of Synos Technology, Inc., and Shareholder Representative Services LLC.	10-K	2.1	2/28/2014	
3.1	Amended and Restated Certificate of Incorporation of Veeco dated December 1, 1994, as amended June 2, 1997 and July 25, 1997.	10-Q	3.1	8/14/1997	
3.2	Amendment to Certificate of Incorporation of Veeco dated May 29, 1998.	10-K	3.2	3/14/2001	
3.3	Amendment to Certificate of Incorporation of Veeco dated May 5, 2000.	10-Q	3.1	8/14/2000	
3.4	Certificate of Designation, Preferences, and Rights of Series A Junior Participating Preferred Stock of Veeco.	10-Q	3.1	5/9/2001	
3.5	Amendment to Certificate of Incorporation of Veeco dated May 16, 2002.	10-Q	3.1	10/26/2009	
3.6	Amendment to Certificate of Incorporation of Veeco dated May 14, 2010.	10-K	3.8	2/24/2011	
3.7	Fourth Amended and Restated Bylaws of Veeco, effective October 23, 2008.	8-K	3.1	10/27/2008	
3.8	Amendment No. 1 to the Fourth Amended and Restated Bylaws of Veeco effective May 20, 2010.	8-K	3.1	5/26/2010	
3.9	Amendment No. 2 to the Fourth Amended and Restated Bylaws of Veeco effective October 20, 2011.	8-K	3.1	10/24/2011	

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10.1	Loan Agreement dated as of December 15, 1999 between Applied Epi, Inc. and Jackson National Life Insurance Company.	10-Q	10.2	11/14/2001
10.2	Amendment to Loan Documents effective as of September 17, 2001 between Applied Epi, Inc. and Jackson National Life Insurance Company (executed in June 2002).	10-Q	10.2	8/14/2002
10.3	Promissory Note dated as of December 15, 1999 issued by Applied Epi, Inc. to Jackson National Life Insurance Company.	10-Q	10.3	11/14/2001
10.4*	Form of Indemnification Agreement entered into between Veeco and each of its directors and executive officers.	8-K	10.1	10/23/2006
10.5*	Veeco Amended and Restated 2000 Stock Incentive Plan, effective July 20, 2006.	10-Q	10.4	8/4/2006
10.6*	Amendment No. 1 effective April 18, 2007 (ratified by the Board August 7, 2007) to Veeco Amended and Restated 2000 Stock Incentive Plan.	10-Q	10.1	8/7/2007
10.7*	Amendment No. 2 dated January 22, 2009 to Veeco Amended and Restated 2000 Stock Incentive Plan.	10-K	10.41	3/2/2009
10.8*	Form of Restricted Stock Agreement pursuant to the Veeco 2000 Stock Incentive Plan, effective November 2005.	10-Q	10.3	11/2/2005

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Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or Furnished Herewith
		Form	Exhibit	Filing Date	
10.9*	Form of Notice of Restricted Stock Award and related terms and conditions pursuant to the Veeco 2000 Stock Incentive Plan, effective June 2006.	10-Q	10.3	11/6/2006	
10.10*	Veeco Amended and Restated 2010 Stock Incentive Plan, effective May 14, 2010.	Def 14A	Appendix A	11/4/2013	
10.11*	Form of 2010 Stock Incentive Plan Stock Option Agreement (2012 rev.).	10-Q	10.2	7/27/2012	
10.12*	Form of 2010 Stock Incentive Plan Restricted Stock Agreement (2012 rev.).	10-Q	10.3	7/27/2012	
10.13*	Form of 2010 Stock Incentive Plan Restricted Stock Unit Agreement (2012 rev.).	10-Q	10.4	7/27/2012	
10.14*	Form of 2010 Stock Incentive Plan Restricted Stock Agreement (Non-Employee Director) (2011 rev.).	10-Q	10.5	7/27/2012	
10.15*	Form of 2010 Stock Incentive Plan Restricted Stock Agreement (Performance Based) (2012 rev.).	10-Q	10.6	7/27/2012	
10.16*	Form of Notice of Performance Share Award and related terms and conditions pursuant to the Veeco 2010 Stock Incentive Plan, effective June 2014.	10-Q	10.2	7/31/2014	
10.17*	Veeco 2013 Inducement Stock Incentive Plan, effective September 26, 2013.	10-Q	10.1	11/4/2013	
10.18*	Form of 2013 Inducement Stock Incentive Plan Stock Option Agreement.	10-Q	10.2	11/4/2013	
10.19*	Form of 2013 Inducement Stock Incentive Plan Restricted Stock Unit Agreement.	10-Q	10.3	11/4/2013	
10.20*	Veeco Performance-Based Restricted Stock 2010.	10-Q	10.2	7/29/2010	
10.21*	Veeco Amended and Restated Senior Executive Change in Control Policy, effective as of January 1, 2014.	10-K	10.22	2/28/2014	
10.22*	Amendment effective December 31, 2008 to Employment Agreement between Veeco and John R. Peeler.	10-K	10.38	3/2/2009	
10.23*	Second Amendment effective June 11, 2010 to Employment Agreement between Veeco and John R. Peeler.	10-Q	10.1	7/29/2010	
10.24*	Third Amendment effective April 27, 2012 to Employment Agreement between Veeco and John R. Peeler.	10-Q	10.2	5/9/2012	
10.25*	Amendment dated June 12, 2014 to Employment Agreement between Veeco and John R. Peeler.	10-Q	10.3	7/31/2014	
10.26*	Letter Agreement dated April 8, 2014 between Veeco and Shubham Maheshwari.	10-Q	10.1	7/31/2014	
10.27*	Letter Agreement dated January 21, 2004 between Veeco and John P. Kiernan.	10-K	10.38	3/12/2004	
10.28*	Amendment effective June 9, 2006 to Letter Agreement between Veeco and John P. Kiernan.	10-Q	10.3	8/4/2006	
10.29*	Amendment effective December 31, 2008 to Letter Agreement between Veeco and John P. Kiernan.	10-K	10.40	3/2/2009	
10.30*	Letter agreement effective as of June 19, 2009 between Veeco and John P. Kiernan.	10-Q	10.2	7/30/2009	
10.31*	Letter Agreement dated January 30, 2012 between Veeco and Dr. William J. Miller.	10-K	10.30	2/22/2012	

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Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or Furnished Herewith
		Form	Exhibit	Filing Date	
21.1	Subsidiaries of the Registrant.				X
23.1	Consent of Ernst & Young LLP.				X
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities and Exchange Act of 1934.				X
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities and Exchange Act of 1934.				X
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes - Oxley Act of 2002.				X
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes - Oxley Act of 2002.				X
101.INS	XBRL Instance.				**
101.XSD	XBRL Schema.				**
101.PRE	XBRL Presentation.				**
101.CAL	XBRL Calculation.				**
101.DEF	XBRL Definition.				**
101.LAB	XBRL Label.				**

* Indicates a management contract or compensatory plan or arrangement, as required by Item 15(a) (3) of Form 10-K.

** Filed herewith electronically

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 24, 2015.

Veeco Instruments Inc.

By:

/S/ JOHN R. PEELER
John R. Peeler
Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated, on February 24, 2015.

Signature

Title

/s/ JOHN R. PEELER
John R. Peeler

Chairman and Chief Executive Officer
(principal executive officer)

/s/ SHUBHAM MAHESHWARI
Shubham Maheshwari

Executive Vice President and Chief Financial Officer
(principal financial officer)

/s/ JOHN P. KIERNAN
John P. Kiernan

Senior Vice President, Finance, Chief Accounting Officer,
Corporate Controller and Treasurer
(principal accounting officer)

/s/ EDWARD H. BRAUN
Edward H. Braun

Director

/s/ RICHARD A. D AMORE
Richard A. D Amore

Director

/s/ GORDON HUNTER
Gordon Hunter

Director

/s/ KEITH D. JACKSON
Keith D. Jackson

Director

/s/ ROGER D. MCDANIEL

Director

Roger D. McDaniel

/s/ PETER J. SIMONE

Director

Peter J. Simone

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Veeco Instruments Inc. and Subsidiaries

Index to Consolidated Financial Statements and Financial Statement Schedule

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<u>Consolidated Balance Sheets as of December 31, 2014 and 2013</u>	F-3
<u>Consolidated Statements of Operations for the years ended December 31, 2014, 2013 and 2012</u>	F-4
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of

Veeco Instruments Inc.

We have audited the accompanying consolidated balance sheets of Veeco Instruments Inc. (the Company) as of December 31, 2014 and 2013 and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2014. Our audits also included the financial statement schedule listed in the Index at Item 15(a). These financial statements and the schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Veeco Instruments Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, present fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Veeco Instruments Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 24, 2015 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Jericho, New York
February 24, 2015

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Veeco Instruments Inc. and Subsidiaries

Consolidated Balance Sheets

(in thousands, except share amounts)

Assets			
Current assets:			
Cash and cash equivalents	\$	270,811	\$ 210,799
Short-term investments		120,572	281,538
Restricted cash		539	2,738
Accounts receivable, net		60,085	23,823
Inventories		61,471	59,726
Deferred cost of sales		5,076	724
Prepaid expenses and other current assets		23,132	22,579
Assets held for sale		6,000	
Deferred income taxes		7,976	11,716
Total current assets		555,662	613,643
Property, plant and equipment at cost, net		78,752	89,139
Goodwill		114,959	91,348
Deferred income taxes		1,180	397
Intangible assets, net		159,308	114,716
Other assets		19,594	38,726
Total assets	\$	929,455	\$ 947,969
Liabilities and stockholders' equity			
Current liabilities :			
Accounts payable	\$	18,111	\$ 35,755
Accrued expenses and other current liabilities		48,418	51,084
Customer deposits and deferred revenue		96,004	34,754
Income taxes payable		5,441	6,149
Deferred income taxes		120	159
Current portion of long-term debt		314	290
Total current liabilities		168,408	128,191
Deferred income taxes		16,397	28,052
Long-term debt		1,533	1,847
Other liabilities		4,185	9,649
Total liabilities		190,523	167,739
Stockholders' Equity:			
Preferred stock, 500,000 shares authorized; no shares issued and outstanding			
Common stock, \$0.01 par value, 120,000,000 shares authorized; 40,360,069 and 39,666,195 shares issued and outstanding at December 31, 2014 and 2013, respectively		404	397
Additional paid-in capital		750,139	721,352
Retained earnings (accumulated deficit)		(13,080)	53,860
Accumulated other comprehensive income		1,469	4,621
Total stockholders' equity		738,932	780,230
Total liabilities and stockholders' equity	\$	929,455	\$ 947,969

See accompanying Notes to the Consolidated Financial Statements.

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Table of Contents**Veeco Instruments Inc. and Subsidiaries****Consolidated Statements of Operations**

(in thousands, except per share amounts)

	For the year ended December 31,		
	2014	2013	2012
Net sales	\$ 392,873	\$ 331,749	\$ 516,020
Cost of sales	257,991	228,607	300,887
Gross profit	134,882	103,142	215,133
Operating expenses, net:			
Selling, general, and administrative	89,760	85,486	73,110
Research and development	81,171	81,424	95,153
Amortization	13,146	5,527	4,908
Restructuring	4,394	1,485	3,813
Asset impairment	58,170	1,220	1,335
Changes in contingent consideration	(29,368)	829	
Other, net	(3,182)	(1,017)	(398)
Total operating expenses, net	214,091	174,954	177,921
Operating income (loss)	(79,209)	(71,812)	37,212
Interest income	1,570	1,200	2,476
Interest expense	(715)	(598)	(1,502)
Income (loss) from continuing operations before income taxes	(78,354)	(71,210)	38,186
Income tax provision (benefit)	(11,414)	(28,947)	11,657
Income (loss) from continuing operations	(66,940)	(42,263)	26,529
Discontinued operations :			
Income from discontinued operations before income taxes			6,269
Income tax provision			1,870
Income from discontinued operations			4,399
Net income (loss)	\$ (66,940)	\$ (42,263)	\$ 30,928
Basic income (loss) per common share:			
Continuing operations	\$ (1.70)	\$ (1.09)	\$ 0.69
Discontinued operations			0.11
Net income (loss)	\$ (1.70)	\$ (1.09)	\$ 0.80
Diluted income (loss) per common share:			
Continuing operations	\$ (1.70)	\$ (1.09)	\$ 0.68
Discontinued operations			0.11
Net income (loss)	\$ (1.70)	\$ (1.09)	\$ 0.79
Weighted average number of shares:			
Basic	39,350	38,807	38,477
Diluted	39,350	38,807	39,051

See accompanying Notes to the Consolidated Financial Statements.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Consolidated Statements of Comprehensive Income (Loss)**

(in thousands)

	For the year ended December 31,		
	2014	2013	2012
Net income (loss)	\$ (66,940)	\$ (42,263)	\$ 30,928
Other comprehensive income (loss), net of tax			
Unrealized gain (loss) on available-for-sale securities	51	34	(118)
Benefit (provision) for income taxes		11	50
Less: Reclassification adjustments included in net income (loss)	(65)	(61)	(24)
Net unrealized loss on available-for-sale securities	(14)	(16)	(92)
Minimum pension liability	(145)	125	(216)
Benefit (provision) for income taxes		(86)	79
Net minimum pension liability	(145)	39	(137)
Foreign currency translation	149	(1,322)	(1,071)
Benefit (provision) for income taxes		(53)	683
Less: Reclassification adjustments included in net income (loss)	(3,142)		
Net foreign currency translation	(2,993)	(1,375)	(388)
Other comprehensive income (loss), net of tax	(3,152)	(1,352)	(617)
Comprehensive income (loss)	\$ (70,092)	\$ (43,615)	\$ 30,311

See accompanying Notes to the Consolidated Financial Statements.

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Veeco Instruments Inc. and Subsidiaries

Consolidated Statements of Stockholders' Equity

(in thousands)

	Common Stock		Treasury Stock	Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income	Total
	Shares	Amount					
Balance at December 31, 2011	38,768	\$ 435	\$ (200,175)	\$ 688,353	\$ 265,317	\$ 6,590	\$ 760,520
Net income					30,928		30,928
Other comprehensive loss, net of tax						(617)	(617)
Share-based compensation expense				14,268			14,268
Net issuance under employee stock plans	560	11		5,792			5,803
Retirement of treasury stock		(53)	200,175		(200,122)		
Prior period debt conversion adjustment				310			310
Balance at December 31, 2012	39,328	393		708,723	96,123	5,973	811,212
Net loss					(42,263)		(42,263)
Other comprehensive loss, net of tax						(1,352)	(1,352)
Share-based compensation expense				13,130			13,130
Net issuance under employee stock plans	338	4		(501)			(497)
Balance at December 31, 2013	39,666	397		721,352	53,860	4,621	780,230
Net income					(66,940)		(66,940)
Other comprehensive loss, net of tax						(3,152)	(3,152)
Share-based compensation expense				18,813			18,813
Net issuance under employee stock plans	694	7		9,974			9,981
Balance as of December 31, 2014	40,360	\$ 404	\$	\$ 750,139	\$ (13,080)	\$ 1,469	\$ 738,932

See accompanying Notes to the Consolidated Financial Statements.

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Veeco Instruments Inc. and Subsidiaries

Consolidated Statements of Cash Flows

(in thousands)

	2014	2013	2012
Cash Flows from Operating Activities			
Net income (loss)	\$ (66,940)	\$ (42,263)	\$ 30,928
Adjustments to reconcile net income (loss) to net cash from operating activities :			
Depreciation and amortization	24,573	18,425	16,192
Deferred income taxes	(11,330)	(12,264)	(340)
Share-based compensation expense	18,813	13,130	14,268
Excess tax benefits from share-based compensation			(2,119)
Provision (recovery) for bad debts	(1,814)	1,946	198
Impairment of long-lived assets	58,170	1,220	1,335
Gain on sale of lab tools	(1,549)	(767)	
Gain on disposal of segment			(4,112)
Gain on cumulative translation adjustment	(3,142)		
Change in contingent consideration	(29,368)	829	
Changes in operating assets and liabilities :			
Accounts receivable	(25,390)	36,898	31,017
Inventories and deferred cost of sales	6,513	2,753	53,937
Prepaid expenses and other current assets	(2,245)	842	8,524
Accounts payable and accrued expenses	(5,534)	7,542	(12,106)
Customer deposits and deferred revenue	55,536	(17,329)	(34,227)
Income taxes receivable and payable, net	20,279	(12,734)	1,853
Other, net	5,497	2,499	9,253
Discontinued operations			(2,638)
Net cash provided by operating activities	42,069	727	111,963
Cash Flows from Investing Activities			
Acquisitions of businesses, net of cash acquired	(144,069)	(71,488)	
Capital expenditures	(15,588)	(9,174)	(24,994)
Proceeds from the liquidation of investments	318,276	499,645	244,929
Payments for purchases of investments	(157,737)	(589,099)	(165,080)
Payments for purchase of cost method investment	(2,388)	(2,391)	(10,341)
Proceeds from sale of assets from discontinued segment			3,758
Proceeds from sale of lab tools	9,259	4,440	
Other	350	11	49
Net cash provided by (used in) investing activities	8,103	(168,056)	48,321
Cash Flows from Financing Activities			
Proceeds from stock option exercises	12,056	2,199	5,409
Restricted stock tax withholdings	(2,075)	(2,696)	(1,725)
Excess tax benefits from equity-based compensation			2,119
Contingent consideration payments		(5,000)	
Repayments of long-term debt	(290)	(269)	(248)
Net cash provided by (used in) financing activities	9,691	(5,766)	5,555
Effect of exchange rate changes on cash and cash equivalents	149	(663)	796
Net increase (decrease) in cash and cash equivalents	60,012	(173,758)	166,635
Cash and cash equivalents as of beginning of period	210,799	384,557	217,922
Cash and cash equivalents as of end of period	\$ 270,811	\$ 210,799	\$ 384,557
Supplemental disclosure of cash flow information			
Interest paid	\$ 159	\$ 357	\$ 209

Income taxes paid	3,320	8,001	11,566
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See accompanying Notes to the Consolidated Financial Statements.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements

Note 1 Significant Accounting Policies

(a) Description of Business

Veeco Instruments Inc. (together with its consolidated subsidiaries, Veeco, or the Company) operates in a single segment: the design, development, manufacture, and support of thin film process equipment primarily sold to make electronic devices including light emitting diodes (LEDs), power electronics, wireless devices, hard disk drives, and semiconductors.

(b) Basis of Presentation

The accompanying audited Consolidated Financial Statements of the Company have been prepared in accordance with United States generally accepted accounting principles (GAAP). The Company reports interim quarters on a 13-week basis ending on the last Sunday of each period, which is determined at the start of each year. The Company's fourth quarter always ends on the last day of the calendar year, December 31. During 2014 the interim quarters ended on March 30, June 29 and September 28, and during 2013 the interim quarters ended on March 31, June 30 and September 29. The Company reports these interim quarters as March 31, June 30 and September 30 in its interim consolidated financial statements.

(c) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Although these estimates are based on management's knowledge of current events and actions it may undertake in the future, these estimates may ultimately differ from actual results. Significant items subject to such estimates and assumptions include: (i) the best estimate of selling price for the Company's products and services; (ii) allowances for doubtful accounts and inventory obsolescence; (iii) the useful lives and expected future cash flows of property, plant, and equipment and identifiable intangible assets; (iv) the fair value of the Company's reporting units and related goodwill; (v) the fair value, less cost to sell, of assets held for sale; (vi) investment valuations and the valuation of derivatives, deferred tax assets, and assets acquired in business combinations; (vii) the recoverability of long lived assets; (viii) liabilities for product warranty and legal contingencies; (ix) share-based compensation; and (x) income tax uncertainties. Actual results could differ from those estimates.

(d) Principles of Consolidation

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The Consolidated Financial Statements include the accounts of the Company and its subsidiaries. Intercompany balances and transactions have been eliminated in consolidation. Companies acquired during each reporting period are reflected in the results of the Company effective from their respective dates of acquisition through the end of the reporting period.

(e) Foreign Currencies

Assets and liabilities of the Company's foreign subsidiaries that operate using local functional currencies are translated using the exchange rates in effect at the balance sheet date. Results of operations are translated using monthly average exchange rates. Adjustments arising from the translation of the foreign currency financial statements of the Company's subsidiaries into U.S. dollars, including intercompany transactions of a long-term nature, are reported as currency translation adjustments in Accumulated other comprehensive income in the Consolidated Balance Sheets. Foreign currency transaction gains or losses are included in Other, net in the Consolidated Statements of Operations.

(f) Revenue Recognition

The Company recognizes revenue when all of the following criteria have been met: persuasive evidence of an arrangement exists with a customer; delivery of the specified products has occurred or services have been rendered; prices are contractually fixed or determinable; and collectability is reasonably assured. Revenue is recorded including shipping and handling costs and excluding applicable taxes related to sales. A significant portion of the Company's revenue is derived from contractual arrangements with customers that have multiple elements, such as systems, upgrades, components, spare parts, maintenance, and service plans. For sales arrangements that contain multiple elements, the arrangement is split into separate units of accounting if the individually delivered elements have value to the customer on a standalone basis. The Company also evaluates whether multiple transactions with the same customer or related parties should be considered part of a multiple element arrangement, based on an assessment of whether the contracts or agreements are negotiated or

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

executed within a short time frame of each other or if there are indicators that the contracts are negotiated in contemplation of one another. When there are separate units of accounting, the Company allocates revenue to each element based on the following selling price hierarchy: vendor-specific objective evidence (VSOE) if available; third party evidence (TPE) if VSOE is not available; or the best estimate of selling price (BEBP) if neither VSOE nor TPE is available. The Company uses BEBP for the majority of the elements in its arrangements.

The Company considers many facts when evaluating each of its sales arrangements to determine the timing of revenue recognition including its contractual obligations, the customer's creditworthiness, and the nature of the customer's post-delivery acceptance provisions. The Company's system sales arrangements, including certain upgrades, generally include field acceptance provisions that may include functional or mechanical test procedures. For the majority of the arrangements, a customer source inspection of the system is performed in the Company's facility or test data is sent to the customer documenting that the system is functioning to the agreed upon specifications prior to delivery. Historically, such source inspection or test data replicates the field acceptance provisions that are performed at the customer's site prior to final acceptance of the system. As such, the Company objectively demonstrates that the criteria specified in the contractual acceptance provisions are achieved prior to delivery and, therefore, revenue is recognized upon system delivery since there is no substantive contingency remaining related to the acceptance provisions at that date, subject to the retention amount constraint described below. For new products, new applications of existing products or for products with substantive customer acceptance provisions where the Company cannot objectively demonstrate that the criteria specified in the contractual acceptance provisions have been achieved prior to delivery, revenue and the associated costs are deferred and fully recognized upon the receipt of final customer acceptance, assuming all other revenue recognition criteria have been met.

The Company's system sales arrangements, including certain upgrades, generally do not contain provisions for right of return, forfeiture, refund, or other purchase price concession. In the rare instances where such provisions are included, all revenue is deferred until such rights expire. The sales arrangements generally include installation. The installation process is not deemed essential to the functionality of the equipment since it is not complex; that is, it does not require significant changes to the features or capabilities of the equipment or involve building elaborate interfaces or connections subsequent to factory acceptance. The Company has a demonstrated history of consistently completing installations in a timely manner and can reliably estimate the costs of such activities. Most customers engage the Company to perform the installation services, although there are other third-party providers with sufficient knowledge who could complete these services. Based on these factors, installation is deemed to be inconsequential or perfunctory relative to the system sale as a whole, and as a result, installation service is not considered a separate element of the arrangement. As such, the Company accrues the cost of the installation at the time of revenue recognition for the system.

In many cases the Company's products are sold with a billing retention, typically 10% of the sales price (the retention amount), which is typically payable by the customer when field acceptance provisions are completed. The amount of revenue recognized upon delivery of a system or upgrade, if any, is limited to the lower of i) the amount billed that is not contingent upon acceptance provisions or ii) the value of the arrangement consideration allocated to the delivered elements, if such sale is part of a multiple-element arrangement.

The Company's contractual terms with customers in Japan generally specify that title and risk and rewards of ownership transfer upon customer acceptance. As a result, for customers in Japan, revenue is recognized upon the receipt of written customer acceptance. During the fourth quarter of fiscal 2013, the Company began using a distributor for almost all of its product and service sales to customers in Japan. Title passes to the distributor upon shipment, however, due to customary local business practices, the risk and rewards of ownership of the system transfers to the end-customers upon their acceptance. As such, the Company recognizes revenue upon receipt of written acceptance from the end customer.

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The Company recognizes revenue related to maintenance and service contracts ratably over the applicable contract term. The Company recognizes revenue from the sales of components, spare parts, and specified service engagements at the time of delivery in accordance with the terms of the applicable sales arrangement.

Incremental direct costs incurred related to the acquisition of a customer contract, such as sales commissions, are expensed as incurred, even if the related revenue is deferred in accordance with the above policy.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

(g) Warranty Costs

The Company typically provides standard warranty coverage on its systems for one year from the date of final acceptance by providing labor and parts necessary to repair the systems during the warranty period. The Company accounts for the estimated warranty cost when revenue is recognized on the related system. Warranty cost is included in "Cost of sales" in the Consolidated Statements of Operations. The estimated warranty cost is based on the Company's historical experience with its systems and regional labor costs. The Company calculates the average service hours by region and parts expense per system utilizing actual service records to determine the estimated warranty charge. The Company updates its warranty estimates on a semiannual basis when the actual product performance and/or field expense differs from original estimates.

(h) Shipping and Handling Costs

Shipping and handling costs are expenses incurred to move, package and prepare the Company's products for shipment and to move the products to a customer's designated location. These costs are generally comprised of payments to third-party shippers. Shipping and handling costs are included in "Cost of sales" in the Consolidated Statements of Operations.

(i) Research and Development Costs

Research and development costs are expensed as incurred and include charges for the development of new technology and the transition of existing technology into new products or services.

(j) Advertising Expense

The cost of advertising is expensed as incurred and totaled \$0.6 million, \$0.5 million, and \$0.8 million during 2014, 2013 and 2012, respectively.

(k) Accounting for Share-Based Compensation

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Share-based awards exchanged for employee services are accounted for under the fair value method. Accordingly, share-based compensation cost is measured at the grant date based on the fair value of the award. The expense for awards expected to vest is recognized over the employee's requisite service period (generally the vesting period of the award). Awards expected to vest are estimated based on a combination of historical experience and future expectations.

The Company has elected to treat awards with only service conditions and with graded vesting as one award. Consequently, the total compensation expense is recognized straight-line over the entire vesting period, so long as the compensation cost recognized at any date at least equals the portion of the grant date fair value of the award that is vested at that date.

The Company uses the Black-Scholes option-pricing model to compute the estimated fair value of option awards. The Black-Scholes model includes assumptions regarding dividend yields, expected volatility, expected option term, and risk-free interest rates. See Note 16, Stock Plans, for additional information.

In addition to stock options, restricted share awards (RSAs) and restricted stock units (RSUs) with time-based vesting, the Company issues performance share units and awards (PSUs and PSAs). Compensation cost for PSUs and PSAs is recognized over the requisite service period based on the timing and expected level of achievement of the performance targets. A change in the assessment of the probability of a performance condition being met is recognized in the period of the change in estimate. At the conclusion of the performance period, the applicable number of shares of RSAs, RSUs, or unrestricted shares granted may vary based on the level of achievement of the performance targets.

(l) Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities from a change in tax rate

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

is recognized in income in the period that includes the enactment date.

The Company recognizes the effect of income tax positions only if those positions are more likely than not to be sustained. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest and penalties related to uncertain tax positions in income tax expense. See Note 18, *Income Taxes*, for additional information.

(m) Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, investments, derivative financial instruments used in hedging activities, and accounts receivable. The Company invests in a variety of financial instruments and, by policy, limits the amount of credit exposure with any one financial institution or commercial issuer. The Company has not experienced any material credit losses on its investments.

The Company maintains an allowance reserve for potentially uncollectible accounts for estimated losses resulting from the inability of its customers to make required payments. The Company evaluates its allowance for doubtful accounts based on a combination of factors. In circumstances where specific invoices are deemed to be uncollectible, the Company provides a specific allowance for bad debt against the amount due to reduce the net recognized receivable to the amount reasonably expected to be collected. The Company also provides allowances based on its write-off history. The allowance for doubtful accounts totaled \$0.7 million and \$2.4 million at December 31, 2014 and 2013, respectively.

To further mitigate the Company's exposure to uncollectible accounts, the Company may request certain customers provide a negotiable irrevocable letter of credit drawn on a reputable financial institution. These irrevocable letters of credit are typically issued to mature between zero and 90 days from the date the documentation requirements are met, typically when a system ships or upon receipt of final acceptance from the customer. The Company, at its discretion, may monetize these letters of credit on a non-recourse basis after they become negotiable, but before maturity. The fees associated with the monetization are included in *Selling, general, and administrative* in the Consolidated Statements of Operations and were insignificant for the fiscal years ended December 31, 2014, 2013, and 2012.

(n) Fair Value of Financial Instruments

The carrying amounts of financial instruments, including cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses reflected in the consolidated financial statements approximate fair value due to their short-term maturities. The fair value of debt for footnote disclosure purposes, including current maturities, is estimated using a discounted cash flow analysis based on the estimated current incremental borrowing rates for similar types of securities.

(o) Cash, Cash Equivalents, and Short-Term Investments

All financial instruments purchased with an original maturity of three months or less at the time of purchase are considered cash equivalents. Such items may include liquid money market accounts, U.S. treasuries, government agency securities, and corporate debt. Investments that are classified as cash equivalents are carried at cost, which approximates fair value.

A portion of the Company's cash and cash equivalents is held by its subsidiaries throughout the world, frequently in each subsidiary's respective functional currency, which may not be the U.S. dollar. Approximately 81% and 71% of cash and cash equivalents were maintained outside the United States at December 31, 2014 and 2013, respectively.

Marketable securities are generally classified as available-for-sale for use in current operations, if required, and are reported at fair value, with unrealized gains and losses, net of tax, presented as a separate component of stockholders' equity under the caption Accumulated other comprehensive income. These securities can include U.S. treasuries, government agency securities, corporate debt, and commercial paper, all with maturities of greater than three months when purchased. All realized gains and losses and unrealized losses resulting from declines in fair value that are other than temporary are included in Other, net in the Consolidated Statements of Operations. The specific identification method is used to determine the realized gains and losses on investments.

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

(p) Inventories

Inventories are stated at the lower of cost or market, with cost determined on a first-in, first-out basis. The Company reviews and sets standard costs on a periodic basis at current manufacturing costs in order to approximate actual costs. The Company assesses the valuation of all inventories, including manufacturing raw materials, work-in-process, finished goods, and spare parts, each quarter. Obsolete inventory or inventory in excess of management's estimated usage requirement is written down to its estimated market value if less than cost. Estimates of market value include, but are not limited to, management's forecasts related to the Company's future manufacturing schedules, customer demand, technological and/or market obsolescence, general market conditions, possible alternative uses, and ultimate realization of excess inventory. If future customer demand or market conditions are less favorable than the Company's projections, additional inventory write-downs may be required and would be reflected in cost of sales in the period the revision is made. Inventory acquired as part of a business combination is recorded at fair value on the date of acquisition. See Note 5, Business Combinations, for additional information.

(q) Business Combinations

The Company allocates the fair value of the purchase consideration of the Company's acquisitions to the tangible assets, intangible assets, including in-process research and development (IPR&D), if any, and liabilities assumed, based on estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. IPR&D is initially capitalized at fair value as an intangible asset with an indefinite life and assessed for impairment thereafter. When a project underlying reported IPR&D is completed, the corresponding amount of IPR&D is amortized over the asset's estimated useful life. Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred in Selling, General, and Administrative in the Consolidated Statements of Operations. See Note 5, Business Combinations, for additional information.

(r) Goodwill and Indefinite-Lived Intangibles

Goodwill is an asset representing the future economic benefits arising from assets acquired in a business combination that are not individually identified and separately recognized. Goodwill is measured as the excess of the consideration transferred over the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed. Intangible assets with indefinite useful lives are measured at their respective fair values as of the acquisition date. Intangible assets related to IPR&D projects are considered to be indefinite-lived until the completion or abandonment of the associated R&D efforts. If and when development is complete, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time. Goodwill and indefinite-lived intangibles are not amortized into results of operations but instead are evaluated for impairment. The Company performs the evaluation in the fourth quarter of each fiscal year or more frequently if impairment indicators arise.

The Company first performs a qualitative assessment of whether it is more likely than not that a reporting unit's fair value is less than its carrying amount, and, if so, the Company then applies the two-step impairment test. The two-step impairment test first compares the fair value of the

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Company's reporting units to their carrying amount. If the fair value of the reporting unit exceeds its carrying amount, goodwill is not impaired, and the Company is not required to perform further testing. If the carrying amount of the reporting unit exceeds its fair value, the Company determines the implied fair value of the reporting unit's goodwill and, if the carrying amount of the reporting unit's goodwill exceeds its implied fair value, then the Company records an impairment loss equal to the difference.

The Company determines the fair value of its reporting units based on income and/or market approaches. Determining the fair value of a reporting unit involves the use of significant estimates and assumptions. These estimates and assumptions include revenues and expenses, working capital requirements, residual growth rates, discount rates, and future economic and market conditions. The Company considers historical data, current internal estimates, and market growth trends when developing financial projections. Market participant assumption estimates consider the information being used internally for business planning purposes, however, actual future results may differ from those estimates. Changes in judgments on any of these factors could materially affect the estimated value of the reporting unit.

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Notes to Consolidated Financial Statements (Continued)

(s) Long-Lived Assets and Cost Method Investment

Definite-lived intangible assets consist of purchased technology, customer-related intangible assets, patents, trademarks, covenants not-to-compete, and software licenses, and are initially recorded at fair value. Definite-lived intangibles are amortized over their estimated useful lives for periods up to 17 years, in a method reflecting the pattern in which the economic benefits are consumed, or straight-lined if such pattern cannot be reliably determined.

Property, plant and equipment are recorded at cost. Depreciation expense is calculated based on the estimated useful lives of the assets by using the straight-line method. Amortization of leasehold improvements is recognized using the straight-line method over the shorter of the remaining lease term or the estimated useful lives of the improvements.

Long-lived assets and cost method investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group be tested for possible impairment, a recoverability test is performed utilizing undiscounted cash flows expected to be generated by that asset or asset group compared to its carrying amount. If the carrying amount of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent the carrying amount exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models or, when available, quoted market values and third-party appraisals.

(t) Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09: *Revenue from Contracts with Customers*. The amendments in this ASU require that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard outlines a five-step model to be used to make the revenue recognition determination and requires new financial statement disclosures. The standard is effective for interim and annual periods beginning after December 15, 2016 and allows entities to choose among different transition alternatives. The Company is evaluating the impact of adopting the standard on its consolidated financial statements and related financial statement disclosures, and has not yet determined which method of adoption will be selected.

The Company has evaluated other pronouncements recently issued but not yet adopted and does not believe the adoption of these pronouncements will have a material impact on the consolidated financial statements.

Note 2 Income (Loss) Per Common Share

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Basic income (loss) per common share is calculated by dividing net income (loss) available to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted income per common share is calculated by dividing net income available to common stockholders by using the weighted average number of common shares and common share equivalents outstanding during the period. The computations of basic and diluted income (loss) per common share are as follows:

	Year ended December 31,		
	2014	2013	2012
	<i>(in thousands, except per share amounts)</i>		
Net income (loss)	\$ (66,940)	\$ (42,263)	\$ 30,928
Net income (loss) per common share:			
Basic	\$ (1.70)	\$ (1.09)	\$ 0.80
Diluted	\$ (1.70)	\$ (1.09)	\$ 0.79
Basic weighted average shares outstanding	39,350	38,807	38,477
Effect of potentially dilutive share-based awards			574
Diluted weighted average shares outstanding	39,350	38,807	39,051

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

For the year ended December 31, 2014 and 2013, 0.7 million and 0.6 million common equivalent shares, respectively, were excluded from the computation of diluted net loss per share as their effect would be anti-dilutive since the Company incurred a net loss. The dilutive effect of outstanding options and restricted stock units is reflected in diluted income per common share by application of the treasury stock method. For the years ended December 31, 2014, 2013, and 2012, respectively, approximately 1.6 million, 1.3 million and 1.3 million potentially dilutive securities underlying restricted stock awards, restricted stock units, and options to purchase common stock were excluded from the calculation since they would have had an antidilutive effect on diluted income per common share.

Note 3 Fair Value Measurements

Fair value is the price that would be received for an asset or the amount paid to transfer a liability in an orderly transaction between market participants. The Company is required to classify certain assets and liabilities based on the following fair value hierarchy:

- Level 1: Quoted prices in active markets that are unadjusted and accessible at the measurement date for identical, unrestricted assets or liabilities;

- Level 2: Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or financial instruments for which significant inputs are observable, either directly or indirectly; and

- Level 3: Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The Company has evaluated the estimated fair value of financial instruments using available market information and valuations as provided by third-party sources. The use of different market assumptions and/or estimation methodologies could have a significant effect on the estimated fair value amounts.

The following table presents the Company's assets and (liabilities) that were measured at fair value on a recurring basis at December 31, 2014 and 2013:

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	December 31, 2014			Total
	Level 1	Level 2	Level 3	
	<i>(in thousands)</i>			
U.S. treasuries	\$ 81,527	\$	\$	\$ 81,527
Corporate debt		39,045		39,045
Assets held for sale		6,000		6,000

	December 31, 2013			Total
	Level 1	Level 2	Level 3	
	<i>(in thousands)</i>			
U.S. treasuries	\$ 130,977	\$	\$	\$ 130,977
Corporate debt		77,601		77,601
Government agency securities		61,013		61,013
Commercial paper		11,947		11,947
Derivative instrument		907		907
Contingent consideration			(29,368)	(29,368)

Highly liquid investments with maturities of three months or less are classified as cash equivalents and are carried at cost, which approximates fair value. All investments classified as available-for-sale are recorded at fair value within short-term

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)**

investments in the Consolidated Balance Sheets. The Company's investments classified as Level 1 are based on quoted prices that are available in active markets. The Company's investments classified as Level 2 are valued using observable inputs to quoted market prices, benchmark yields, reported trades, broker/dealer quotes or alternative pricing sources with reasonable levels of price transparency.

A reconciliation of the amounts classified as Level 3 is as follows:

	Contingent Consideration <i>(in thousands)</i>
Balance as of December 31, 2013	\$ (29,368)
Fair value adjustment	29,368
Balance as of December 31, 2014	\$

The Company estimated the fair value of the contingent consideration by applying various probabilities and discount factors to each of the performance milestones. At December 31, 2013, contingent consideration consisted of \$20.1 million and \$9.3 million in current and noncurrent other liabilities, respectively, in the Consolidated Balance Sheets. During 2014, the Company determined that the agreed upon post-closing milestones were not met and reversed the fair value of the liability, which is included in "Changes in contingent consideration" in the Consolidated Statements of Operations. Refer to Note 5, "Business Combinations," for additional information.

Note 4 Investments

At December 31, 2014 and 2013 the amortized cost and fair value of marketable securities were as follows:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
	<i>(in thousands)</i>			
December 31, 2014				
U.S. treasuries	\$ 81,506	\$ 27	\$ (6)	\$ 81,527
Corporate debt	39,031	20	(6)	39,045
Total available-for-sale securities	\$ 120,537	\$ 47	\$ (12)	\$ 120,572
December 31, 2013				
U.S. treasuries	\$ 130,956	\$ 22	\$ (1)	\$ 130,977
Government agency securities	61,004	9		61,013
Corporate debt	77,582	55	(36)	77,601

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Commercial paper		11,947				11,947		
Total available-for-sale securities	\$	281,489	\$	86	\$	(37)	\$	281,538

Available-for-sale securities in a loss position at December 31, 2014 and 2013 were as follows:

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	December 31, 2014		December 31, 2013	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
	<i>(in thousands)</i>			
U.S. treasuries	\$ 35,001	\$ (6)	\$ 29,068	\$ (1)
Corporate debt	13,069	(6)	37,654	(36)
Total	\$ 48,070	\$ (12)	\$ 66,722	\$ (37)

As of December 31, 2014 and 2013, there were no short-term investments that had been in a continuous loss position for more than 12 months.

The contractual maturities of securities classified as available-for-sale at December 31, 2014 were as follows:

	December 31, 2014	
	Amortized Cost	Estimated Fair Value
	<i>(in thousands)</i>	
Due in one year or less	\$ 74,710	\$ 74,718
Due after one year through two years	45,827	45,854
Total	\$ 120,537	\$ 120,572

Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. Realized gains for the fiscal years ended December 31, 2014 and 2013 were \$0.1 million in each period, and are included in Other, net in the Consolidated Statements of Operations. There were minimal realized gains for the year ended December 31, 2012 and no realized losses in any of the three years.

Restricted Cash

The total amount of restricted cash at December 31, 2014 and 2013 was \$0.5 million and \$2.7 million, respectively, which serves as collateral for bank guarantees that provide financial assurance that the Company will fulfill certain customer obligations. This cash is held in custody by the issuing bank, and is restricted as to withdrawal or use while the related bank guarantees are outstanding.

Cost Method Investment

The Company maintains certain investments in support of its strategic business objectives, including a non-marketable cost method investment. The Company's ownership interest is less than 20% of the investee's voting stock, and the Company does not exert significant influence, therefore the investment is recorded at cost. The carrying value of the investment was \$19.4 million and \$16.9 million at December 31, 2014 and 2013, respectively and is included in Other assets on the Consolidated Balance Sheet. The investment is subject to a periodic impairment review; however, there are no open-market valuations, and the impairment analysis requires significant judgment. The analysis includes assessments of the investee's financial condition, the business outlook for its products and technology, its projected results and cash flow, the likelihood of obtaining subsequent rounds of financing, and the impact of any relevant contractual equity preferences held by the Company or others. Fair value of the investment is not estimated unless there are identified events or changes in circumstances that could have a significant adverse effect on the fair value of the investment. No such events or circumstances are present.

Table of Contents**Veeco Instruments Inc. and Subsidiaries****Notes to Consolidated Financial Statements (Continued)****Note 5 Business Combinations***PSP*

On December 4, 2014 the Company acquired 100% of Solid State Equipment, LLC (SSEC) and rebranded the business Veeco Precision Surface Processing (PSP). The results of PSP operations have been included in the consolidated financial statements since the date of acquisition. PSP designs and develops wafer wet processing capabilities. Target market applications include semiconductor advanced packaging (including 2.5D and 3D ICs), MEMS, compound semiconductor (rf, power electronics, LED and others), data storage, photomask, and flat panel displays. PSP further extends the Company s penetration in the compound semiconductor and MEMS markets and represents the Company s entry into the advanced packaging market.

The acquisition date fair value of the consideration totaled \$145.5 million, net of cash acquired, which consisted of the following:

	Acquisition Date (December 4, 2014) <i>(in thousands)</i>	
Amount paid, net of cash acquired	\$	145,382
Working capital adjustment		88
Acquisition date fair value	\$	145,470

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the acquisition date. The Company utilized third-party valuations to estimate the fair value of certain of the acquired tangible and intangible assets. The values assigned to certain acquired assets and liabilities are preliminary and may be adjusted as further information becomes available during the allocation period of up to 12 months from the acquisition date.

	Acquisition Date (December 4, 2014) <i>(in thousands)</i>	
Accounts receivable	\$	9,383
Inventory		13,812
Other current assets		463
Property, plant, and equipment		6,912
Intangible assets		79,810
Total identifiable assets acquired		110,380
Accounts payable and accrued expenses		6,473

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Customer deposits		6,039
Deferred tax liability, net		2,705
Other		1,089
Total liabilities assumed		16,306
Net identifiable assets acquired		94,074
Goodwill		51,396
Net assets acquired	\$	145,470

The gross contractual value of the acquired accounts receivable was approximately \$10.5 million. The fair value of the accounts receivables as indicated above is the amount expected to be collected by the Company. Goodwill generated from the acquisition is primarily attributable to expected synergies from future growth and strategic advantages provided through the expansion of product offerings, as well as assembled workforce. Approximately 80% of the value of the goodwill is expected to be deductible for income tax purposes.

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The classes of intangible assets acquired and the estimated useful life of each class is presented in the table below:

	Amount	Acquisition Date (December 4, 2014)	Useful life
	<i>(in thousands)</i>		
Technology	\$ 39,950		10 years
Customer relationships	34,310		14 years
Backlog	3,340		6 months
Non-compete agreements	1,130		2 years
Trademark and tradenames	1,080		1 year
Intangible assets acquired	\$ 79,810		

The Company determined the estimated fair value of the identifiable intangible assets based on various factors including: cost, discounted cash flow, income method, loss-of-revenue/income method, and relief-from-royalty method in determining the purchase price allocation. The fair value of the acquired assets is provisional pending the final valuations for these assets.

During 2014, the Company recognized \$3.2 million of acquisition related costs that are included in Selling, general, and administrative in the Consolidated Statements of Operations.

The amounts of revenue and income (loss) from continuing operations before income taxes of PSP included in the Company's consolidated statement of operations from the acquisition date (December 4, 2014) to the period ending December 31, 2014 are as follows:

	Total	
	<i>(in thousands)</i>	
Revenue	\$ 7,906	
Loss from operations before income taxes	\$ (3,011)	

The following represents the unaudited pro forma Consolidated Statements of Operations as if PSP had been included in the Company's consolidated results for the periods indicated. These amounts have been calculated after applying the Company's accounting policies to material amounts and also adjusting the result of PSP to reflect the additional amortization and depreciation that would have been expensed assuming the fair value adjustments to the acquired assets had been applied on January 1, 2013:

December 31,

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	2014		2013	
	<i>(in thousands)</i>			
Revenue	\$	447,089	\$	379,272
Loss from operations before income taxes	\$	(68,715)	\$	(77,252)

ALD

On October 1, 2013 the Company acquired 100% of the outstanding common shares and voting interest of Synos Technology, Inc. and rebranded the business Veeco ALD (*ALD*). The results of ALD operations have been included in the consolidated financial statements since the date of acquisition. ALD is an early stage manufacturer of fast array scanning atomic layer deposition (*FAST-ALD*) tools for the flexible organic light-emitting diode (*OLED*) and semiconductor markets.

The acquisition date fair value of the consideration totaled \$102.3 million, net of cash acquired, which consisted of the following:

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	Acquisition Date (October 1, 2013)	
	<i>(in thousands)</i>	
Cash (net of cash acquired)	\$	71,488
Contingent consideration		33,539
Working capital adjustment		(2,695)
Acquisition date fair value	\$	102,332

The acquisition agreement included performance milestones that could trigger contingent payments to the original selling shareholders. During the year ended December 31, 2013, the first milestone was achieved, and the Company paid the former shareholders \$5.0 million and increased the estimated fair value of the remaining contingent payments by \$0.8 million. During 2014, the Company determined that all of the remaining performance milestones were not met, reversed the fair value of the liability, and recorded a non-cash gain of \$29.4 million, which is included in Changes in contingent consideration in the Consolidated Statements of Operations.

During 2014, the Company finalized the working capital adjustment under the purchase agreement. Based on the final adjustment, the working capital adjustment was reduced to \$1.3 million. As a result, a \$1.4 million adjustment was made that increased goodwill by \$0.2 million and reduced accrued expenses by \$1.2 million for the relief of a potential liability that the former shareholders have retained. During 2014, the Company received payment of the \$1.3 million working capital adjustment from the former shareholders, which is included in Acquisitions of business, net of cash acquired within the Cash Provided by Investing Activities in the Consolidated Statements of Cash Flows.

The following table summarizes the estimated fair value of the assets acquired and liabilities assumed at the acquisition date. The Company utilized third-party valuations to estimate the fair value of the acquired tangible and intangible assets as well as the contingent consideration:

	Acquisition Date (October 1, 2013)	
	<i>(in thousands)</i>	
Accounts receivable	\$	1,523
Inventory		386
Other current assets		512
Property, plant, and equipment		1,917
Intangible assets		99,270
Total identifiable assets acquired		103,608
Current liabilities		4,370
Estimated deferred tax liability, net		32,426
Total liabilities assumed		36,796
Net identifiable assets acquired		66,812
Goodwill		35,520
Net assets acquired	\$	102,332

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The goodwill is not deductible for income tax purposes.

The classes of intangible assets acquired and the original estimated useful life of each class is presented in the table below:

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	Acquisition Date (October 1, 2013)	
	Amount	Useful life
	<i>(in thousands)</i>	
Technology	\$ 73,160	14 years
Customer relationships	20,630	8 years
In-process research and development	5,070	To be determined
Trademarks and trade names	140	1 year
Non-compete agreement	270	3 years
Intangible assets acquired	\$ 99,270	

The Company determined the estimated fair value of the identifiable intangible assets based on various factors including: cost, discounted cash flow, income method, loss-of-revenue/income method, and relief-from-royalty method in determining the purchase price allocation.

During the fourth quarter of 2014, the Company determined that, while its ALD technology was successfully demonstrated at its key OLED display customer, it was unlikely to be adopted in the near-term for flexible OLED applications. The significant reduction in near-term forecasted bookings and cash flows required the Company to assess its ALD reporting unit for impairment. As a result, the Company recorded a non-cash impairment charge of \$53.9 million related to goodwill and other long-lived assets for ALD. See Note 6, Goodwill and Intangible Assets, for additional information.

During 2013, the Company recognized \$1.0 million of acquisition related costs that are included in Selling, general, and administrative in the Consolidated Statements of Operations.

The following represents the pro forma Consolidated Statements of Operations as if Veeco ALD had been included in the Company's consolidated results for the periods indicated:

	2013	December 31,	2012
	<i>(in thousands)</i>		
Revenue	\$ 346,319	\$	522,029
Income (loss) from operations before income taxes	\$ (60,983)	\$	16,840

These amounts have been calculated after applying the Company's accounting policies to material amounts and also adjusting the result of ALD to reflect the additional amortization that would have been expensed assuming the fair value adjustments to the acquired assets had been applied on January 1, 2012.

Note 6 Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price over the sum of the amounts assigned to tangible and identifiable intangible assets acquired less liabilities assumed in each business combination. The following table presents the changes in goodwill balances during the fiscal years indicated:

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

	Gross Carrying Amount		Accumulated Impairment <i>(in thousands)</i>		Net Amount
As of December 31, 2012	\$ 151,069	\$	\$ 95,241	\$	\$ 55,828
Acquisition	35,520				35,520
As of December 31, 2013	186,589		95,241		91,348
Acquisition	51,396				51,396
Purchase price adjustments	173				173
Impairments			27,958		(27,958)
As of December 31, 2014	\$ 238,158	\$	\$ 123,199	\$	\$ 114,959

Additions to the gross goodwill balance during the years ended December 31, 2014 and 2013 resulted from the acquisition of privately-held businesses as described further in Note 5, Business Combinations.

The Company performed its annual goodwill impairment test in the fourth quarter. The reporting units' fair value exceeded their respective carrying amount and therefore goodwill within these reporting units was not impaired. The fair value of each reporting unit was determined using an income approach to determine the present value of expected future cash flows.

During 2014, the Company successfully demonstrated its FAST-ALD technology for flexible OLED encapsulation. But subsequent to the Company's annual goodwill impairment test, the Company determined that the incumbent deposition technology had progressed to satisfy current market requirements. The carrying amount of the ALD reporting unit was determined to exceed its fair value, and therefore the fair value of the reporting unit's goodwill was estimated. An impairment loss was recognized equal to the excess of the carrying amount of the reporting unit's goodwill over its implied fair value. As part of its valuation to determine the total impairment charge, the Company also estimated the fair value of significant tangible and intangible long-lived assets within the ALD reporting unit. These tangible and intangible long-lived assets were valued using appropriate valuation techniques for assets of their nature, including income and market approaches. As a result of the impairment analysis, the Company recorded non-cash impairment charges of \$28.0 million related to goodwill and \$25.9 million related to other long-lived assets, including \$17.4 million related to customer relationships, \$4.8 million related to in-process research and development, and \$3.6 million related to certain tangible assets.

The components of purchased intangible assets as of the dates indicated below were as follows:

Weighted Average Remaining Amortization Period <i>(in years)</i>	Gross Carrying Amount	December 31, 2014			December 31, 2013		
		Accumulated Amortization and Impairment	Net Amount <i>(in thousands)</i>	Gross Carrying Amount	Accumulated Amortization and Impairment	Net Amount	

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Technology	9.6	\$	222,358	\$	106,342	\$	116,016	\$	182,408	\$	97,524	\$	84,884
Customer relationships	13.9		69,350		35,549		33,801		35,040		14,721		20,319
Trademarks and tradenames	3.5		3,050		1,096		1,954		1,970		763		1,207
Indefinite-lived trademark			2,900				2,900		2,900				2,900
IPR&D			5,070		5,070				5,070				5,070
Other	1.1		5,485		848		4,637		765		429		336
Total	10.2	\$	308,213	\$	148,905	\$	159,308	\$	228,153	\$	113,437	\$	114,716

Other intangible assets primarily consist of patents, licenses, customer backlog, and non-compete agreements.

For the fiscal years ended December 31, 2014, 2013, and 2012, amortization expense for intangible assets was \$13.1 million, \$5.5 million, and \$4.9 million, respectively. Based on the intangible assets recorded as of December 31, 2014, and

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assuming no subsequent additions to or impairment of the underlying assets, the remaining estimated annual amortization expense is expected to be as follows:

	Amortization <i>(in thousands)</i>
2015	\$ 27,003
2016	20,969
2017	18,100
2018	16,492
2019	15,235
Thereafter	58,609
Total	\$ 156,408

Note 7 Inventories

Inventories are stated at the lower of cost or market using standard costs that approximate actual costs on a first-in, first-out basis. Inventories consist of the following:

	2014	December 31,		2013
		<i>(in thousands)</i>		
Materials	\$	30,319	\$	34,301
Work-in-process		25,096		12,900
Finished goods		6,056		12,525
Total	\$	61,471	\$	59,726

Note 8 Property, Plant, and Equipment and Assets Held for Sale

Property and equipment, net, consist of the following:

	2014	December 31,		2013	Average
		<i>(in thousands)</i>			Useful Life
Land	\$	9,392	\$	12,535	
Building and improvements		51,979		52,050	10 40 years

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Machinery and equipment	104,815	110,228	3	10 years
Leasehold improvements	4,356	5,888	3	7 years
Gross property, plant and equipment	170,542	180,701		
Less: accumulated depreciation and amortization	91,790	91,562		
Net property, plant, and equipment	\$ 78,752	\$ 89,139		

Depreciation expense was \$11.4 million, \$12.9 million, and \$11.3 million for the years ended December 31, 2014, 2013, and 2012, respectively.

Lab Tools

At December 31, 2014 and 2013, the carrying value of systems that had previously been used in the Company's laboratories as Veeco Certified Equipment was approximately \$1.3 million and \$7.2 million, respectively, and was included in Property, plant, and equipment, net in the Consolidated Balance Sheets. These systems are being held for sale and are the same types of tools that the Company sells to its customers in the ordinary course of business. During the years ended December 31, 2014 and 2013, the Company had aggregate sales of \$8.9 million and \$7.4 million, respectively, of these

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tools with associated costs of \$7.4 million and \$3.7 million, respectively, which was included in *Net sales* and *Cost of sales* in the Consolidated Statements of Operations. During the years ended December 31, 2014 and 2013, the Company evaluated certain systems and reduced the carrying value of these systems that were held for sale by \$0.1 million and \$0.9 million, respectively, which was included in *Asset impairment* in the Consolidated Statements of Operations.

Assets Held for Sale

During the year ended December 31, 2014, the Company classified property, plant, and equipment with a carrying value of \$9.5 million as assets held for sale. Using Level 2 measurement principles, the Company determined that the carrying cost of these assets exceeded the fair market value, less cost to sell, and recorded an impairment charge of approximately \$3.5 million, which consisted of \$1.6 million related to the Company's research and demonstration labs in Asia and \$1.9 million related to a vacant building and land. These amounts were included in *Asset impairment* in the Consolidated Statements of Operations. The net \$6.0 million carrying value of these assets are included in *Assets held for sale* in the Consolidated Balance Sheet. During the year ended December 31, 2014, the Company recognized additional asset impairment charges of \$0.7 million relating to assets that were abandoned during the year, which was included in *Asset impairment* in the Consolidated Statements of Operations.

Note 9 Accrued Expenses and Other Liabilities

The components of accrued expenses and other current liabilities as of the dates indicated were as follows:

	2014	December 31, <i>(in thousands)</i>	2013
Payroll and related benefits	\$	26,605	\$ 11,020
Sales, use, and other taxes		1,776	5,402
Contingent consideration			20,098
Warranty		5,411	5,662
Restructuring liability		1,428	533
Other		13,198	8,369
Total	\$	48,418	\$ 51,084

Customer deposits and deferred revenue

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Customer deposits totaled \$73.0 million and \$27.5 million at December 31, 2014 and 2013, respectively, which are included in Customer deposits and deferred revenue in the Consolidated Balance Sheets.

Note 10 Discontinued Operations

CIGS Solar Systems Business

During 2011, the Company announced a plan to discontinue its CIGS solar systems business and reflected the results of operations for the CIGS solar systems business as discontinued operations.

Metrology

During 2010, the Company completed the sale of its Metrology business, except for assets located in China due to local restrictions. The Company reflected the results of operations for the Metrology business as discontinued operations and recognized a pre-tax deferred gain of \$5.4 million during 2012 related to the completion of the sale of the assets in China. The Company also recognized a \$1.4 million gain (\$1.1 million net of taxes) on the sale of assets of this discontinued segment that were previously held for sale and sold during 2012.

Summary information related to discontinued operations is as follows:

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	2012		
	Solar Systems	Metrology <i>(in thousands)</i>	Total
Net sales	\$	\$	\$
Net income (loss) from discontinued operations	\$ (62)	\$ 4,461	\$ 4,399

Note 11 Restructuring Charges

Beginning in 2011 and in response to challenging business conditions, the Company initiated activities to reduce and contain spending, including reducing its workforce, consultants, and discretionary expenses.

During 2012, the Company recorded \$3.8 million in personnel severance and related costs resulting from a headcount reduction of 52 employees. These reductions in workforce included executives, management, administration, sales and service, and manufacturing employees companywide. This consolidation was substantially complete at the end of 2012.

During 2013, the Company recorded \$1.5 million in personnel severance and related costs resulting from the restructuring of one of its international sales offices and the consolidation of certain sales and administrative functions. This consolidation was substantially complete at the end of 2013.

During 2014, the Company announced the closing of its Ft. Collins, Colorado and Camarillo, California facilities. Business activities formally conducted at these sites have been transferred to the Company's Plainview, New York facility, and the Company recorded \$0.4 million of facility closing costs. The Company also took additional measures to improve profitability in the challenging business environment and notified 93 employees of their termination from the Company and recorded \$4.0 million of personnel severance and related costs. These actions were substantially complete at the end of 2014. The total remaining amount expected to be incurred related to facility closing costs is approximately \$0.5 million.

The following table shows the amounts incurred and paid for restructuring activities during the years ended December 31, 2014, 2013, and 2012 and the remaining accrued balance of restructuring costs as of December 31, 2014, which is included in Accrued expenses and other current liabilities in the Consolidated Balance Sheets:

Personnel Severance and Related Costs	Facility Closing Costs <i>(in thousands)</i>	Total
--	--	--------------

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Balance at December 31, 2012	\$	1,875	\$	\$	1,875
Provision		1,485			1,485
Payments		(2,827)			(2,827)
Balance at December 31, 2013		533			533
Provision		4,012		382	4,394
Payments		(3,117)		(382)	(3,499)
Balance at December 31, 2014	\$	1,428	\$	\$	1,428

Note 12 Commitments and Contingencies

Warranty

Warranties are typically valid for one year from the date of system final acceptance, and the Company estimates the costs that may be incurred under the warranty. Estimated warranty costs are determined by analyzing specific product and historical configuration statistics and regional warranty support costs and is affected by product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Unforeseen component failures or exceptional component performance can also result in changes to warranty costs.

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Changes in the Company's product warranty reserves were as follows:

	2014	December 31, <i>(in thousands)</i>	2013
Balance, beginning of the year	\$	5,662	\$ 4,942
Addition for new warranties issued		3,484	5,291
Addition from PSP acquisition		809	
Settlements		(3,802)	(5,580)
Changes in estimate		(742)	1,009
Balance, end of the year	\$	5,411	\$ 5,662

Minimum Lease Commitments

Minimum lease commitments at December 31, 2014 for property and equipment under operating lease agreements (exclusive of renewal options) are payable as follows:

Payments due by period:	Operating Leases <i>(in thousands)</i>
2015	\$ 2,322
2016	2,423
2017	1,993
2018	1,224
2019	526
Thereafter	2,700
Total	\$ 11,188

Rent expense was \$2.3 million, \$2.9 million, and \$3.5 million in 2014, 2013 and 2012, respectively. In addition, the Company is obligated under such leases for certain other expenses, including real estate taxes and insurance.

Environmental Remediation

The Company is aware that petroleum hydrocarbon contamination has been detected in the soil at the site of a facility formerly leased by the Company in Santa Barbara, California. The Company has been indemnified for any liabilities that may be incurred which arise from environmental contamination at the site. Even without consideration of such indemnification, the Company does not believe that any material loss or expense is probable in connection with any such liabilities. The former owner of the land and building in Santa Barbara, California in

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which the Company's former Metrology operations were located (which business was sold to Bruker Corporation (Bruker) on October 7, 2010), has disclosed that there are hazardous substances present in the ground under the building. Management believes that the comprehensive indemnification clause that was part of the purchase contract relating to the purchase of such land provides adequate protection against any environmental issues that may arise. The Company has provided Bruker with similar indemnification as part of the sale.

Legal Proceedings

Veeco and certain other parties were named as defendants in a lawsuit filed on April 25, 2013 in the Superior Court of California, County of Sonoma. The plaintiff in the lawsuit, Patrick Colbus, seeks unspecified damages and asserts claims that he suffered burns and other injuries while he was cleaning a molecular beam epitaxy system alleged to have been manufactured by Veeco. The lawsuit alleges, among other things, that the molecular beam epitaxy system was defective and that Veeco failed to adequately warn of the potential risks of the system. The Company believes this lawsuit is without merit and intends to defend vigorously against the claims. The Company is unable to predict the outcome of this action or to

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reasonably estimate the possible loss or range of loss, if any, arising from the claims asserted therein. The Company believes that, in the event of any recovery by the plaintiff from Veeco, such recovery would be fully covered by insurance.

The Company is involved in various other legal proceedings arising in the normal course of business. The Company does not believe that the ultimate resolution of these matters will have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

Concentrations of Credit Risk

The Company depends on purchases from its ten largest customers, which accounted for 65% and 69% of total accounts receivable as of December 31, 2014 and 2013, respectively.

Customers who accounted for more than 10% of aggregate accounts receivable or net sales are as follows:

Customer	Accounts Receivable Year ended December 31,		Net Sales for the Year Ended December 31,		
	2014	2013	2014	2013	2012
Customer A	*	*	15%	*	*
Customer B	20%	10%	11%	14%	*
Customer C	13%	11%	*	*	*
Customer D	*	23%	*	*	14%

* Less than 10% of aggregate accounts receivable or net sales.

The Company manufactures and sells its products to companies in different geographic locations. Refer to Note 19, Segment Reporting and Geographic Information, for additional information. In certain instances, the Company requires deposits from its customers for a portion of the sales price in advance of shipment and performs periodic credit evaluations on its customers. Where appropriate, the Company requires letters of credit on certain non-U.S. sales arrangements. Receivables generally are due within 30 - 90 days from the date of invoice. The net accounts receivable balance is concentrated in the following geographic locations:

2014 **December 31,** **2013**
(in thousands)

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China	\$	17,911	\$	4,130
Korea		8,118		2,411
Thailand		6,324		2,041
Taiwan		5,838		427
Other		3,986		4,890
Asia Pacific		42,177		13,899
United States		13,139		8,369
EMEA and other		4,769		1,555
Total	\$	60,085	\$	23,823

Suppliers

The Company outsources certain functions to third parties, including the manufacture of all or substantially all of its MOCVD systems, ion beam and other data storage systems, and ion sources. The Company primarily relies on several suppliers for the manufacturing of these systems, but the Company does maintain a minimum level of internal manufacturing capability for these systems. The failure of the Company's present suppliers to meet their contractual obligations under its supply arrangements and the Company's inability to make alternative arrangements or resume the manufacture of these systems could have a material adverse effect on the Company's revenues, profitability, cash flows and relationships with its customers.

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Notes to Consolidated Financial Statements (Continued)

In addition, certain of the components and sub-assemblies included in the Company's products are obtained from a single source or a limited group of suppliers. The Company's inability to develop alternative sources, if necessary, could result in a prolonged interruption in supply or a significant increase in the price of one or more components, which could adversely affect the Company's operating results.

The Company had deposits with its suppliers of \$12.7 million and \$9.4 million at December 31, 2014 and 2013, respectively, that were included in Prepaid expenses and other current assets on the Consolidated Balance Sheets.

Purchase Commitments

The Company had purchase commitments of \$112.4 million at December 31, 2014, all of which will come due within one year.

Bank Guarantees

The Company has bank guarantees issued by a financial institution on its behalf as needed. At December 31, 2014, outstanding bank guarantees totaled \$45 million, of which \$0.5 million is collateralized against cash that is restricted from use. As of December 31, 2014, the Company had \$26 million of unused lines of credit available, which can be drawn upon to cover performance bonds required by customers.

Note 13 Debt

Debt consists of a mortgage note payable with a carrying value of \$1.8 million and \$2.1 million as of December 31, 2014 and 2013, respectively. The mortgage note payable is secured by certain land and buildings with a carrying value of \$3.3 million and \$4.7 million as of December 31, 2014 and 2013, respectively. One of the buildings is currently held for sale. The annual interest rate on the mortgage is 7.91%, and the final payment is due on January 1, 2020. The Company determined the mortgage is a Level 3 liability in the fair-value hierarchy and estimated its fair value as \$2.0 million and \$2.3 million at December 31, 2014 and 2013, respectively, using a discounted cash flow model. Payments due under the note are as follows:

	Total
	<i>(in thousands)</i>
2015	\$ 314
2016	340

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2017		368
2018		398
2019		427
Total		1,847
Less current portion		314
Total (less current maturities)	\$	1,533

Note 14 Derivative Financial Instruments

The Company is exposed to financial market risks arising from changes in currency exchange rates. Changes in currency exchange rate changes could affect the Company's foreign currency denominated monetary assets and liabilities and forecasted cash flows. The Company enters into monthly forward derivative contracts with the intent of mitigating a portion of this risk. The Company only uses derivative financial instruments in the context of hedging and not for speculative purposes and has not designated its foreign exchange derivatives as hedges. Accordingly, changes in fair value from these contracts are recorded as Other, net in the Company's Consolidated Statements of Operations. The fair value of these contracts is included in Prepaid expenses and other current assets in the Company's Consolidated Balance Sheets. The Company executes derivative transactions with highly rated financial institutions to mitigate counterparty risk.

The Company did not have any outstanding derivative contracts at December 31, 2014. A summary of the foreign exchange derivatives outstanding on December 31, 2013 is as follows:

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Notes to Consolidated Financial Statements (Continued)

	Fair Value	Maturity Dates <i>(in thousands)</i>	Notional Amount
December 31, 2013			
Foreign currency exchange forwards	\$ 1	January 2014	\$ 4,700
Foreign currency collar	906	October 2014	34,069
Total	\$ 907		\$ 38,769

The following table shows the gains and (losses) from currency exchange derivatives during the years ended December 31, 2014, 2013, and 2012, which are included in Other, net in the Consolidated Statements of Operations:

	2014	Year ended December 31, 2013 <i>(in thousands)</i>	2012
Foreign currency exchange forwards	\$ (89)	\$ 248	\$ 333
Foreign currency collar	(457)	906	
	\$ (546)	\$ 1,154	\$ 333

Note 15 Stockholders Equity*Accumulated Other Comprehensive Income*

The following table presents the changes in the balances of each component of AOCI, net of tax:

	Foreign Currency Translation	Minimum Pension Liability	Unrealized Gains (losses) on AFS Securities	Total
	<i>(in thousands)</i>			
Balance at December 31, 2012	\$ 6,701	\$ (775)	\$ 47	\$ 5,973
Other comprehensive income (loss) before reclassifications	(1,322)	125	34	(1,163)
Benefit (provision) for income taxes	(53)	(86)	11	(128)
Amounts reclassified from AOCI			(61)	(61)
Other comprehensive income (loss)	(1,375)	39	(16)	(1,352)
Balance at December 31, 2013	5,326	(736)	31	4,621
Other comprehensive income (loss) before reclassifications	149	(145)	51	55
Amounts reclassified from AOCI	(3,142)		(65)	(3,207)
Other comprehensive income (loss)	(2,993)	(145)	(14)	(3,152)
Balance at December 31, 2014	\$ 2,333	\$ (881)	\$ 17	\$ 1,469

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During the 2014, the Company completed its plan to liquidate its subsidiary in Japan, since the Company moved to a distributor model to serve its customers in that region. As a result of the liquidation, a cumulative translation gain of \$3.1 million was reclassified from Other Comprehensive Income to Other, net on the Consolidated Statements of Operations.

Preferred Stock

The Board of Directors has authority under the Company's Certificate of Incorporation to issue shares of preferred stock with voting and economic rights to be determined by the Board of Directors.

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Notes to Consolidated Financial Statements (Continued)

Treasury Stock

On August 24, 2010, the Board of Directors authorized the repurchase of up to \$200 million of the Company's common stock. All funds for this repurchase program were exhausted during fiscal year 2011, and during fiscal year 2012, the Company cancelled and retired the 5,278,828 shares of treasury stock previously purchased. During 2012 the Company recorded a reduction in treasury stock of \$200.2 million and a corresponding reduction of \$200.1 million and \$0.1 million in retained earnings and common stock, respectively.

Note 16 Stock Plans

Share-based incentive awards are provided to employees under the terms of the Company's equity incentive compensation plans (the Plans). During 2010 the Company's Board of Directors approved the 2010 Stock Incentive Plan (as amended to date, the 2010 Plan), which replaced the 2000 Stock Incentive Plan, as amended (the 2000 Plan). The Plans are administered by the Compensation Committee of the Board of Directors. The Company's employees, non-employee directors, and consultants are eligible to receive awards under the 2010 Plan, which can include non-qualified stock options, incentive stock options, restricted share awards (RSAs), restricted share units (RSUs), share appreciation rights, dividend equivalent rights or any combination thereof. The Company typically settles awards under the Plans with newly issued shares. All Plans, with the exception of acquired companies' stock plans, have been approved by the Company's shareholders.

The Board of Directors granted equity awards to certain employees in connection with the Company's acquisition of ALD during fiscal year 2013 (Refer to Note 5, Business Combinations for additional information on the acquisition). The equity awards were granted under the Company's 2013 Inducement Stock Incentive Plan (the Inducement Plan), which the Board of Directors adopted to facilitate the granting of equity awards as an inducement to these employees to commence employment with the Company. The Company issued 124,500 stock option shares and 87,000 RSUs under this plan. The stock options will vest over a three year period and have a 10-year term, and the RSUs will vest over a two or four year period. As of December 31, 2013, the Inducement Plan was merged into the 2010 Plan and is considered an inactive plan with no further shares available for grant. As of December 31, 2014, there are 124,500 option shares and 82,700 RSUs outstanding under the Inducement Plan.

The Company is authorized to issue up to 6.8 million shares under the 2010 Plan, including additional shares authorized under a 2013 plan amendment approved by shareholders. Option awards are generally granted with an exercise price equal to the closing price of the Company's common stock on the trading day prior to the date of grant; option awards generally vest over a three year period and have a seven or ten year term. RSAs and RSUs generally vest over one to five years. Certain option and share awards provide for accelerated vesting if there is a change in control, as defined in the 2010 Plan. As of December 31, 2014, there are 1.9 million option shares and 0.4 million RSUs outstanding under the 2010 Plan.

The 2000 Plan was approved by the Company's Board of Directors and shareholders in fiscal year 2000 and was replaced by the 2010 Plan. Therefore, no additional awards are made under this plan. Stock awards granted pursuant to the 2000 Plan expire after seven years and generally

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vest over a two to five year period. As of December 31, 2014, there are 0.4 million option shares outstanding under the 2000 Plan.

Shares Reserved for Future Issuance

At December 31, 2014, the Company has 4.9 million shares reserved to cover exercises of outstanding stock options, vesting of RSUs, and additional grants under the 2010 Plan.

Share-Based Compensation

The Company recognized share-based compensation in the following line items in the Consolidated Statements of Operations for the periods indicated:

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Notes to Consolidated Financial Statements (Continued)

	2014	Year ended December 31, 2013		2012
		<i>(in thousands)</i>		
Cost of sales	\$ 2,456	\$ 1,446	\$ 1,467	
Selling, general, and administrative	11,859	8,339	9,677	
Research and development	4,498	3,347	2,709	
Share-based compensation expense before tax	18,813	13,132	13,853	
Income tax benefit	(6,011)	(4,367)	(4,849)	
Net share-based compensation expense	\$ 12,802	\$ 8,765	\$ 9,004	

The Company capitalized an insignificant amount of share-based compensation into inventory for the years ended December 31, 2014, 2013, and 2012.

The following table summarizes information about unrecognized share-based compensation costs at December 31, 2014:

	Unrecognized Share-Based Compensation Costs <i>(in thousands)</i>	Weighted Average Period Expected to be Recognized <i>(in years)</i>
Stock option awards	\$ 9,939	2.0
Restricted stock units	9,980	2.5
Restricted stock awards	17,501	2.8
Performance share units	2,855	3.3
Performance share awards	152	0.4
Total unrecognized share-based compensation cost	\$ 40,427	2.5

Stock Option Awards

Stock options are awards issued to employees that entitle the holder to purchase shares of the Company's stock at a fixed price. At December 31, 2014, options outstanding that have vested and are expected to vest were as follows:

	Number of Shares <i>(in thousands)</i>	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life <i>(in years)</i>	Aggregate Intrinsic Value <i>(in thousands)</i>
Vested	1,409	\$ 30.76	5.2	\$ 10,127
Expected to vest	903	\$ 32.93	7.7	2,091
Total	2,312	\$ 31.61	6.2	\$ 12,218

Outstanding options expected to vest are net of estimated future forfeitures. The aggregate intrinsic value represents the difference between the option exercise price and \$34.88, the closing price of the Company's common stock on December 31, 2014, the last trading day of the Company's fiscal year as reported on The NASDAQ Stock Market for all in-the-money options.

Additional information with respect to stock option activity was as follows:

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Notes to Consolidated Financial Statements (Continued)

	Number of Shares <i>(in thousands)</i>	Weighted Average Exercise Price
Outstanding at December 31, 2011	2,106	\$ 25.58
Granted	704	32.55
Exercised	(351)	15.39
Expired or forfeited	(137)	35.88
Outstanding at December 31, 2012	2,322	\$ 28.63
Granted	539	32.68
Exercised	(149)	14.74
Expired or forfeited	(114)	35.22
Outstanding at December 31, 2013	2,598	\$ 29.98
Granted	509	33.05
Exercised	(561)	23.88
Expired or forfeited	(155)	36.22
Outstanding at December 31, 2014	2,391	\$ 31.65

The following table summarizes stock option information at December 31, 2014:

Range of Exercise Prices	Shares <i>(in thousands)</i>	Options Outstanding			Options Exercisable			
		Aggregate Intrinsic Value <i>(in thousands)</i>	Weighted Average Remaining Contractual Life <i>(in years)</i>	Weighted Average Exercise Price	Aggregate Intrinsic Value <i>(in thousands)</i>	Weighted Average Remaining Contractual Life <i>(in years)</i>	Weighted Average Exercise Price	
\$8.82 - \$17.48	386	\$ 8,769	1.3	\$ 12.15	386	\$ 8,769	1.3	\$ 12.15
\$20.80 - \$31.45	347	1,626	8.8	30.20	125	616	8.7	29.94
\$31.91 - \$48.04	1,429	2,000	6.9	34.14	669	742	6.4	34.63
\$48.90 - \$51.70	229		6.4	51.21	229		6.4	51.21
	2,391	\$ 12,395	6.2	\$ 31.65	1,409	\$ 10,127	5.2	\$ 30.76

The fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards. The weighted average estimated values of employee stock option grants as well as the weighted average assumptions that were used in calculating such values during fiscal years 2014, 2013, and 2012 were based on estimates at the date of grant as follows:

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	Year ended December 31,		
	2014	2013	2012
Weighted average fair value	\$ 11.58	\$ 13.47	\$ 15.56
Dividend yield	0%	0%	0%
Expected volatility factor(1)	44%	49%	59%
Risk-free interest rate(2)	1.19%	1.27%	0.70%
Expected life(in years)(3)	3.9	4.5	4.5

(1) Expected volatility is measured using historical daily price changes of the Company's stock over the respective expected term of the options and the implied volatility derived from the market prices of the Company's traded options.

(2) The risk-free rate for periods within the contractual term of the stock options is based on the U.S. Treasury yield curve in effect at the time of grant.

(3) The expected life is the number of years the Company estimates that options will be outstanding prior to exercise. The Company's computation of expected life was determined using a lattice-based model incorporating historical post vest exercise and employee termination behavior.

The following table summarizes information on options exercised for the periods indicated:

	Year ended December 31,		
	2014	2013	2012
		<i>(in thousands)</i>	
Cash received from options exercised	\$ 12,056	\$ 2,199	\$ 5,409
Intrinsic value of options exercised	\$ 8,390	\$ 2,509	\$ 6,800

RSAs and RSUs

RSAs are stock awards issued to employees that are subject to specified restrictions and a risk of forfeiture. RSAs entitle holders to dividends. The restrictions typically lapse over one to five years. The fair value of the awards is determined and fixed based on the closing price of the Company's common stock on the trading day prior to the date of grant. RSUs are stock awards issued to employees that entitle the holder to receive shares of common stock as the awards vest, typically over one to five years. RSUs do not entitle holders to dividends. The fair value of the awards is determined and fixed based on the closing price of the Company's common stock on the trading day prior to the date of grant reduced by the present value of dividends expected to be paid on the Company's stock prior to vesting of the RSUs, which is currently assumed to be zero.

The following table summarizes the activity of RSAs and RSUs under the Plans:

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Veeco Instruments Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Continued)

	Number of Shares	Weighted Average Grant Date
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