

VEECO INSTRUMENTS INC
Form 10-K
February 28, 2014
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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, 2013

OR

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

For the transition period from to .

Commission file number 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.)

**Terminal Drive
Plainview, New York**

(Address of Principal Executive Offices)

11803

(Zip Code)

Registrant's telephone number, including area code **(516) 677-0200**

Website: **www.veeco.com**

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

Common Stock, par value \$.01 per share

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 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 (§ 232.405 of this chapter) 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 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 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

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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 Non-accelerated filer Smaller reporting company
(Do not check if a 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 voting stock held by non-affiliates of the Registrant, based on the closing price of the common stock on June 28, 2013 as reported on The Nasdaq National Market, was \$1,376,219,104. Shares of common stock held by each officer and director and by each person who owns 10% or more of the outstanding common stock have been excluded from this computation in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

39,846,244 shares of common stock were outstanding as of the close of business on February 18, 2014.

DOCUMENTS INCORPORATED BY REFERENCE

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Safe Harbor Statement

This annual report on Form 10-K (the Report) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Discussions containing such forward-looking statements may be found in Part I. Items 1, 3, 7 and 7A hereof, as well as within this Report generally. In addition, when used in this Report, the words believes, anticipates, expects, estimates, plans, intends, will and similar expressions are intended to identify forward-looking statements. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from projected results. These risks and uncertainties include, without limitation, the following:

- Our operating results have been, and may continue to be, adversely affected by unfavorable market conditions;
- Timing of market adoption of light emitting diode (LED) technology for general lighting is uncertain;
- 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;
- The further reduction or elimination of foreign government subsidies and economic incentives may adversely affect the future order rate for our metal organic chemical vapor deposition (MOCVD) equipment;
- Our operating results have been, and may continue to be, adversely affected by tightening credit markets;
- 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;
- 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;
- The cyclical nature of the industries we serve directly affects our business;
- We rely on a limited number of suppliers, some of whom are our sole source for particular components;

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- Our sales to LED and data storage 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;
- 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;
- 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;
- The timing of our orders, shipments, and revenue recognition may cause our quarterly operating results to fluctuate significantly;
- We operate in industries characterized by rapid technological change;
- We face significant competition;
- We depend on a limited number of customers, located primarily in a limited number of regions, which operate in highly concentrated industries;

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- Our sales cycle is long and unpredictable;

- 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;

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

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

- We are subject to foreign currency exchange risks;

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

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

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

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

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

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

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- We are subject to risks of non-compliance with environmental, health and safety regulations;
- We have significant operations in locations which could be materially and adversely impacted in the event of a natural disaster or other significant disruption;
- We have adopted certain measures that may have anti-takeover effects which may make an acquisition of our Company by another company more difficult;
- New 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; and
- The matters set forth in this Report generally, including the risk factors set forth in Part I. Item 1A. Risk Factors.

Consequently, such forward-looking statements should be regarded solely as the current plans, estimates and beliefs of Veeco Instruments Inc. (together with its consolidated subsidiaries, Veeco, the Company, we, us, and our, unless the context indicates otherwise). The Company does not undertake any obligation to update any forward-looking statements to reflect future events or circumstances after the date of such statements.

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VEECO INSTRUMENTS INC.

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PART I.

Item 1. Business

The Company

Veeco Instruments Inc. (together with its consolidated subsidiaries, Veeco, the Company, we, us, and our, unless the context indicates otherwise) creates 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 (LEDs), flexible organic LED (OLED) displays, hard-disk drives, solar cells, power semiconductors and wireless components.

We develop highly differentiated, best-in-class process equipment for critical performance steps. 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 demanding industries.

Our *LED & Solar segment* includes two related compound semiconductor technologies, metal organic chemical vapor deposition (MOCVD) and molecular beam epitaxy (MBE) as well as newly acquired atomic layer deposition (ALD) technology. Our MOCVD and MBE systems and components enable the manufacture of LEDs used in consumer electronics, displays and lighting, power semiconductors, wireless components and solar cells. Our ALD technology is used by the manufacturers of OLED displays and has further applications in the semiconductor and solar markets.

Our *Data Storage segment* designs and manufactures systems used to create thin film magnetic heads (TFMHs) that read and write data on hard disk drives. These include ion beam etch, ion beam deposition, diamond-like carbon, physical vapor deposition, chemical vapor deposition, and slicing, dicing and lapping systems. While our systems are primarily sold to hard drive customers, they also have applications in optical coatings, micro-electro-mechanical systems (MEMS) and magnetic sensors, and extreme ultraviolet (EUV) lithography.

As of December 31, 2013, we had approximately 800 employees to support our customers through product and process development, training, manufacturing, and sales and service sites in the U.S., South Korea, Taiwan, China, Singapore, Japan, Europe and other locations.

Veeco Instruments Inc. was organized as a Delaware corporation in 1989.

Our Growth Strategy

Our growth strategy consists of:

- Providing differentiated process equipment to address customers' next generation product development roadmaps;
- 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. Examples include LED, OLED, and power semiconductor devices;
- Leveraging our world-class 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 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.

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Business Overview and Industry Trends

Business Overview: Our deposition, etch and other systems are applicable to the creation of a broad range of microelectronic components, including LEDs, OLEDs, TFMHs and compound semiconductor devices. Our customers who manufacture these devices invest in equipment in order to advance their next generation products and deliver more efficient and cost effective technology solutions. Our businesses tend to be cyclical, and are highly influenced by customer buying patterns that are dependent upon industry trends. While our products are sold to multiple end markets, we are focused herein on the trends that most influence our business.

LED Industry Trends: Following the global recession in 2008-2009, we experienced a rapid improvement in business conditions in late 2009 through mid-2011, particularly in our MOCVD business. Demand for our MOCVD equipment increased dramatically, primarily from customers in South Korea, China, and Taiwan, as LEDs became the standard illumination for TV backlighting. We experienced a strong increase in demand for MOCVD from customers in China due to government funding of LED fabrication facility expansions throughout the region.

Following this large investment, the LED industry entered an overcapacity situation, evidenced by low tool utilization rates being reported by many key global customers. As a result, our MOCVD business declined significantly from the middle of 2011 through the end of 2013. While utilization rates of our equipment in many customer facilities improved in 2013 from prior trough levels in 2012, weak business conditions in MOCVD persist and continue to be difficult at the start of 2014. In the short term, it is difficult for us to predict when the supply/demand of MOCVD equipment will return to equilibrium and when order rates for our MOCVD products will meaningfully recover.

While consumer electronics (e.g. cell phones, laptops, LED-TVs) have been the dominant end markets for LED technology over the past decade, and for which most of the new MOCVD capacity was installed, these applications are expected to reach saturation in the next few years. Conversely, the general lighting market is in its infancy, and we believe that thousands of additional MOCVD tools will be required as LEDs become widely adopted for this much larger market application.

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. We see this opportunity as both vast and long-term given that LED lighting is just now beginning to penetrate the global lighting market. LED adoption is happening initially in outdoor, commercial and industrial lighting where high usage and lower efficiency make incumbent lighting costly. Further adoption 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 are implementing policies to accelerate adoption of LEDs. These include China's 10 cities 10,000 lights program, South Korea's 20-60 plan targeting 60% penetration of lighting on a national level by 2020, and Japan's Basic Energy Plan with specific goals for energy efficient lighting. In March 2013, LED industry forecaster Digitimes Research projected that LED lighting will represent about 38.6% of the total lighting market, and will be worth approximately \$44.2 billion by 2015.

In order to capitalize on this opportunity, we introduced several new generations of MOCVD tools, including our TurboDisc® K-Series and MaxBright® MOCVD systems which provide customers with significant cost of ownership advantages when compared with alternative equipment. These activities enabled us to overtake our primary competitor in market share in 2012. To maintain our leadership position, we continue to invest heavily in MOCVD research and development to help drive down cost of LED manufacturing for our customers in order to accelerate lighting adoption.

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Trends in other Markets Impacting our MOCVD Business: Power semiconductors are an emerging market opportunity for MOCVD equipment. While silicon-based transistors are the mainstream of power electronic devices today, gallium nitride (GaN)-on-Silicon based power electronics developed on MOCVD tools can potentially deliver higher performance (i.e. higher efficiency and switching speed). Global industry leaders in power electronics are currently working on research and development programs to explore this new technology. GaN-on-Silicon based power devices have potential for information technology and consumer devices (e.g. power supplies, inverters).

Another application for MOCVD is in the solar market. MOCVD equipment can also be used to manufacture high-efficiency triple junction photovoltaic cells. We currently sell a small number of MOCVD systems each year to make solar cells for Concentrator Photovoltaic (CPV) and Space Based applications.

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Trends Impacting our MBE Business: 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. Our business is primarily influenced by long-term market trends in cell phone manufacturing. Each one of these complex cell phone devices contains an increasing number of power amplifiers or other compound semiconductor radio frequency components. Due to industry consolidation and resulting overcapacity, our sales of MBE production tools have been declining for about a year. In 2013, we refocused our business and product portfolio to increase our market share in sales of MBE systems to scientific research organizations and universities.

Trends Impacting our ALD Business: On October 1, 2013, we completed the acquisition of Synos Technology, Inc. (Synos), which brought atomic layer deposition technology to us. We are working with the world leader in mobile OLED displays to develop ALD systems that effectively encapsulate the OLED materials and potentially enable flexible displays for mobile phones. According to industry forecasting firm IHS iSuppli, the flexible OLED display market is expected to grow from \$21 million in 2013 to almost \$12 billion by 2020. In addition, we also see numerous extended opportunities for ALD technology in OLED TV, lighting, semiconductor, solar and other adjacent markets.

Data Storage Business Overview and Trends: Worldwide storage demand continues to increase. 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. According to data storage research firm TrendFocus August 2013 report, shipments of TFMHs, the HDD component that our equipment makes, are forecasted to grow at a compound annual growth rate of 4.2% from 2013 to 2017.

While technological change continues in data storage, the industry has gone through a period of maturation, including vertical integration and consolidation. A recovery in capital spending by our key data storage customers in 2010, combined with the successful introduction of several new deposition tools to advance areal density, enabled us to report revenue growth in both 2010 and 2011. Natural disasters in Japan (tsunami) and Thailand (floods) caused major disruptions to the HDD supply chain in 2011. The floods in Thailand resulted in an unexpected increase in equipment orders for us in the fourth quarter of 2011 as customers rebuilt lost capacity. This led to record levels of Data Storage revenue in the first half of 2012. However, this significant equipment investment, combined with industry consolidation and a slowdown in hard drive unit demand in mid-2012 due to weak global economic conditions, caused our hard drive customers to freeze capacity additions. So, for the full year of 2012, our Data Storage revenue was flat and orders were well below recent historical averages. Industry overcapacity and weak order rates continued into 2013 and it is unclear when hard drive manufacturers will need to make significant investments in new equipment capacity.

Throughout industry cycles, we continue to invest in developing systems to support advanced technologies such as heat assisted magnetic recording (HAMR). HAMR is a technology that magnetically records data on high-stability media using laser thermal assistance to first heat the material. HAMR takes advantage of high-stability magnetic compounds that can store single bits in a much smaller area than in current hard drive technology.

Our Data Storage systems are also sold for applications in MEMS magnetic sensors, optical coatings and EUV photomasks. We have put in place new product development, marketing and sales strategies to grow the non-data storage applications for our technologies.

We have two segments, LED & Solar and Data Storage. Net sales for these segments are illustrated in the following table (dollars in thousands):

For the year ended December 31,

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Segment	2013	Percent of total	2012	Percent of total	2011	Percent of total
Analysis						
LED & Solar	\$ 249,742	75.3%	\$ 363,181	70.4%	\$ 827,797	84.5%
Data Storage	82,007	24.7%	152,839	29.6%	151,338	15.5%
Total	\$ 331,749	100.0%	\$ 516,020	100.0%	\$ 979,135	100.0%

Please see our footnote *Foreign Operations, Geographic Area and Product Segment Information* in our Consolidated Financial Statements for additional information regarding our segments and sales by geographic location.

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LED & Solar

Metal Organic Chemical Vapor Deposition Systems (MOCVD): We are the world's leading supplier of MOCVD technology. MOCVD production systems are used to make GaN-based devices (blue and green LEDs) and AsP-based devices (red, orange and yellow LEDs), which are used today in television and laptop backlighting, general illumination, large area signage, specialty illumination and many other applications. Our AsP MOCVD systems also are used to make high-efficiency triple junction photo cells. In 2011, we introduced the industry's first production-proven multi-chamber MOCVD system, the MaxBright, for high-volume production of LEDs. We sell MOCVD systems in either single or multi-chamber configurations. In 2012, we introduced the TurboDisc MaxBright M & MHP and K465i HP GaN MOCVD systems, the industry's highest productivity, highest footprint efficiency platforms for LED manufacturing.

Molecular Beam Epitaxy Systems (MBE): 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. 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 compound semiconductor materials research applications. In 2013, we introduced the GENxplor, the industry's first fully-integrated MBE system for the compound semiconductor R&D market. The GENxplor 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.

Fast Array Scanning Atomic Layer Deposition Systems (FAST-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. We are primarily focused on applying this technology for the encapsulation of organic light emitting diode (OLED) materials used to enable flexible mobile devices and we are also exploring additional applications in solar, semiconductor and other end markets.

Data Storage

Ion Beam Deposition (IBD) Systems: Our IBD systems and NEXUS® 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 etch/deposition 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.

Ion Beam Etch (IBE) Systems: Our NEXUS IBE systems etch precise, complex features for use primarily by data storage and telecommunications device manufacturers in the fabrication of discrete and integrated microelectronic devices.

Physical Vapor Deposition (PVD) Systems: Our NEXUS PVD systems offer manufacturers a highly flexible deposition platform for developing next-generation data storage applications.

Diamond-Like Carbon (DLC) Deposition Systems: Our DLC deposition systems deposit protective coatings on advanced TFMHs.

Chemical Vapor Deposition (CVD) Systems: Our NEXUS CVD systems deposit conformal films for advanced TFMH applications.

Precision Lapping, Slicing, and Dicing Systems: Our Optium® products generally are used in back-end applications in a data storage fabrication facility 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 rowbars and TFMHs.

Optical Coatings: Our SPECTOR offers manufacturers improvements in target material utilization, optical endpoint control and process time for cutting-edge optical interference coating applications.

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Service and Sales

We sell our products and services worldwide primarily through various strategically located sales and service facilities in the U.S., Europe and Asia Pacific, and we believe that our customer service organization is a significant factor in our success. In 2010 and 2011, we significantly expanded our footprint in Asia to bring training, technology support and R&D closer to our customers through new sites in China, Taiwan and South Korea. We provide service and support on a warranty, service contract or an individual service-call basis. We believe that offering timely support creates stronger relationships with customers and provides us with a significant competitive advantage. Revenues from the sale of parts, service and support represented approximately 29%, 21% and 9% of our net sales for the years ended December 31, 2013, 2012 and 2011, respectively. Parts and consumables sales represented approximately 23%, 17% and 7% of our net sales for those years, respectively, and service and support sales were 6%, 4% and 2%, respectively.

Customers

We sell our products to many of the world's major LED, solar and hard drive manufacturers as well as to customers in other industries, research centers, and universities. We rely on certain principal customers for a significant portion of our sales. Sales to HC SemiTek in our LED & Solar segment accounted for more than 10% of our total net sales in 2013, Western Digital in our Data Storage segment accounted for more than 10% of our total net sales in 2012, and Elec-Tech International Co. Ltd. and Sanan Optoelectronics in our LED & Solar segment each accounted for more than 10% of our total net sales in 2011. 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 and Marketing

Our marketing, research and development functions are organized by business unit. We believe that this organizational structure allows each business unit manager to more closely monitor the products for which they are responsible, resulting in more efficient marketing and research and development. Our research and development activities take place at our facilities in Plainview, New York; Poughkeepsie, New York; Camarillo, California; Ft. Collins, Colorado; Somerset, New Jersey; St. Paul, Minnesota; Fremont, California; and South Korea.

We believe that continued and timely development of new products and enhancements to existing products 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 expenses were approximately \$81.4 million, \$95.2 million and \$96.6 million, or approximately 25%, 18% and 10% of net sales for the years ended December 31, 2013, 2012 and 2011, 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 new MOCVD systems, 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.

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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 decreased to \$143.3 million as of December 31, 2013 from \$150.2 million as of December 31, 2012. During the year ended December 31, 2013, we recorded backlog adjustments of approximately \$6.8 million, consisting of a \$5.6 million adjustment related to orders that no longer met our bookings criteria as well as an adjustment related to foreign currency translation of \$1.2 million.

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: Aixtron; Canon Anelva DCA Instruments; Leybold Optics; Oerlikon Balzers; Oxford Instruments; Toyo Nippon Sanso; and Riber.

Intellectual Property

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 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, 2013, we had approximately 800 employees, of which there were approximately 160 in manufacturing and testing, 90 in sales and marketing, 160 in service and product support, 260 in engineering, research and development and 130 in information technology, general administration and finance. In addition, we had approximately 10 temporary employees/outside contractors in support of our variable cost strategy. The success of our future operations depends in large part on our ability to recruit and retain engineers, technicians and other highly-skilled professionals who are in considerable demand. We feel that we have adequate programs in place to attract, motivate and retain our employees. We plan to 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 relations with our employees are good.

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Available Information

We file annual, quarterly and current reports, information statements and other information with the Securities and Exchange Commission (the SEC). The public may obtain information by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is www.sec.gov.

Internet Address

We maintain a website where additional information concerning our business and various upcoming events can be found. The address of our website is www.veeco.com. We provide a link on our website, under Investors Financial SEC Filings, through which investors can access our filings with the SEC, including our filed annual report on Form 10-K, filed quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports. These filings are posted to our website as soon as reasonably practicable after we electronically file such material with the SEC.

Item 1A. Risk Factors

Risk Factors That May Impact Future Results

In addition to the other information set forth herein, the following risk factors should be carefully considered by shareholders of and potential investors in the Company.

Our operating results have been, and may continue to be, adversely affected by unfavorable market conditions.

Market conditions relative to the segments in which we operate have deteriorated significantly in many of the countries and regions in which we do business, and may remain depressed for the foreseeable future. Our MOCVD order volumes decreased significantly in the latter part of 2011, remained depressed through 2012 and 2013, and may continue to remain at low levels. Foreign government incentives designed to encourage the development of the LED industry have been curtailed, and the demand for our MOCVD products has softened. We have experienced and may continue to experience customer rescheduling and, to a lesser extent, cancellations of orders for our products. Continuing adverse market conditions relative to our products would negatively impact our business, and could result in:

- further reduced demand for our products;

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- further 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 continue to experience a slow recovery or an additional down turn, this could have a further negative impact on our sales and revenue generation, margins and operating expenses, and the time it takes us to return to profitability.

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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. These barriers also apply to the adoption of OLED products. While the use of OLED is expected to grow in the near future, it is difficult to predict the rate at which OLED will be adopted by the market. The market adoption of OLED products may not occur at our currently projected rates.

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 new MOCVD systems, 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.

The further 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. These subsidies have now been curtailed and are expected to further decline over time and may end at some point in the future. The further reduction or elimination of these incentives may result in a further 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 further order cancellations, and could have other negative effects on our financial condition and operating results.

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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. As seen in recent years, 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' access to credit, product orders in these channels may decrease which could result in lower revenue. Likewise, 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. With the recent downturn in our MOCVD segment, we have experienced, and may continue to experience, lower than anticipated order levels, cancellations of orders in backlog, rescheduling of customer deliveries, and attendant pricing pressures, all of which could adversely affect our results of 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 results.

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. The current and forecasted downturn in our MOCVD reporting unit could result in further 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. The current uncertain worldwide economic conditions and market instabilities make it increasingly 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

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obsolete, and which could subject us to liabilities to our suppliers for products no longer needed. 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;
- 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) 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.

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 revenues depend 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, including the current MOCVD and Data Storage downturn, 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 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 new MOCVD systems, 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 present 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 revenues, profitability, cash flows, and relationships with our customers.

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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 operating results.

Our sales to LED and data storage 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.

The demand for LEDs and hard disk drives 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.

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.

Approximately 83%, 84%, and 90% of our net sales for the years ended 2013, 2012 and 2011, respectively 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 abroad, many of which are outside our control, including:

- difficulties in managing a global enterprise, including staffing, managing distributors and representatives, and repatriation of earnings;
- regional economic downturns, varying foreign government support, and unstable political environments;

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- 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;
- 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.

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These challenges, many of which are associated with sales into China, 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 operations.

Furthermore, products which are either manufactured in the United States or based on U.S. technology are subject to the United States 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 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, operating results and financial condition.

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.

We operate in industries characterized by rapid technological change.

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All of our businesses 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.

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We face significant competition.

We face significant competition throughout the world in each of our reportable segments, 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 our competitors could cause a decline in sales or loss of market acceptance of our existing 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.

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 is and has been 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. Based on net sales, our five largest customers accounted for 42%, 34%, and 41% of our total net sales for the years ended 2013, 2012 and 2011, respectively. 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 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 for technical superiority or other reasons, 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 2013, 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.

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 range up to twelve months or longer. 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

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from one 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 and 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 net income to fluctuate widely from period to period.

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;

- suspension or termination of our stock listing on the NASDAQ stock exchange, 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.

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;

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- 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 results of operations, financial condition and liquidity.

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 or operating results.

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 United States 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 revenues and gross margins.

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 United States 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 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 United States 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.

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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 operating 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 operations could be materially and adversely affected.

If we are subject to cyber-attacks we could incur substantial costs and, if such attacks are successful, could result in significant liabilities, reputational harm and disruption of 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 or those of third parties, 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.

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:

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- 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;
- difficulties in managing geographically dispersed operations in a cost-effective manner;
- lack of synergy or inability to realize expected synergies;

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- unknown, underestimated and/or undisclosed commitments or liabilities;
- increased amortization expense relating to intangible assets; and
- 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 operating results. We are subject to many of these risks in connection with our recent acquisition of Synos.

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.

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 of a reporting unit below its carrying amount. We are also required to test our definite-lived intangible and long-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 results of operations could be materially and adversely affected.

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 current practices may adversely affect our reported financial results or change the way we conduct our business.

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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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 U.S., 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, revenue and financial condition.

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 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

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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 Veeco that a holder of our common stock might consider in its 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 in its best interest.

New regulations related to conflict minerals will force us to incur additional expenses, and 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

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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.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters and our principal product development and marketing, manufacturing, research and development and training facilities, as well as the approximate size and the segments which utilize such facilities, are:

Owned Facilities Location	Approximate Size (sq. ft.)	Mortgaged	Use
Plainview, NY	80,000	No	Data Storage and Corporate Headquarters
Somerset, NJ	80,000	No	LED & Solar
Somerset, NJ	38,000	No	LED & Solar
St. Paul, MN(1)	111,000	Yes	LED & Solar
Yongin-city, South Korea	56,000	No	Sales Office, Customer Training Center and R&D Center
Hyeongok-ri, South Korea	18,000	No	Sales Office and Clean Room

Leased Facilities Location	Approximate Size (sq. ft.)	Lease Expires	Use
Camarillo, CA	23,000	2015	Data Storage
Fort Collins, CO	26,000	2018	Data Storage
Peabody, MA	30,000	2014	Held for Sublease
Somerset, NJ	14,000	2014	LED & Solar
Poughkeepsie, NY	9,000	2015	LED & Solar
Kingston, NY	44,000	2018	LED & Solar
Fremont, CA	17,000	2015	LED & Solar
Shanghai, China (2)	18,700	2014	Customer Training Center
Hsinchu City, Taiwan	13,500	2015	Sales Office, Process Development, and Customer Training Center

(1) Our LED & Solar segment utilizes approximately 95,000 square feet of this facility. The balance is available for expansion.

(2)
facility.

We have the option to renew this lease for two consecutive two year terms and also have the option to purchase this

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The St. Paul, Minnesota facility is subject to a mortgage which, as of December 31, 2013, had an outstanding balance of \$2.1 million. We also lease small offices in Santa Clara, California and Edina, Minnesota for sales and service. Our foreign sales and service subsidiaries lease office space in Germany, Japan, South Korea, Malaysia, Singapore, Thailand, Philippines and China. We believe 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. Veeco believes this lawsuit is without merit and intends to defend vigorously against the claims. Veeco is 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. The Company believes that, in the event of any recovery by the plaintiff from Veeco, such recovery would be fully covered by Veeco's 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.

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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 National Market under the symbol VECO. The 2013 and 2012 high and low closing bid prices by quarter are as follows:

	2013		2012	
	High	Low	High	Low
First Quarter	\$ 38.41	\$ 28.71	\$ 33.40	\$ 21.46
Second Quarter	42.60	32.23	36.97	26.54
Third Quarter	36.41	33.16	38.11	30.00
Fourth Quarter	38.15	28.44	31.52	26.89

On February 18, 2014, the closing bid price for our common stock on The NASDAQ National Market was \$41.13 and we had 120 shareholders of record.

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.

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Stock Performance Graph

ASSUMES \$100 INVESTED ON DEC. 31, 2008

ASSUMES DIVIDENDS REINVESTED

FISCAL YEAR ENDING DEC. 31

	2008	2009	2010	2011	2012	2013
Veeco Instruments Inc.	100.00	521.14	677.60	328.08	465.14	519.09
S&P Smallcap 600	100.00	125.57	158.60	160.22	186.37	263.37

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PHLX Semiconductor	100.00	159.68	183.23	186.05	204.93	268.55
RDG MidCap Technology	100.00	166.67	214.78	179.75	177.47	239.71

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The financial data set forth below should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements and notes thereto included elsewhere in this Form 10-K.

	Year ended December 31,				
	2013	2012	2011	2010	2009
	(in thousands, except per share data)				
Statement of Operations Data:					
Net sales	\$ 331,749	\$ 516,020	\$ 979,135	\$ 930,892	\$ 282,262
Operating income (loss)	(71,812)	37,212	276,259	303,253	7,631
Income (loss) from continuing operations net of income taxes	(42,263)	26,529	190,502	277,176	(1,777)
Income (loss) from discontinued operations net of income taxes		4,399	(62,515)	84,584	(13,855)
Net income (loss) attributable to noncontrolling interest					(65)
Net income (loss) attributable to Veeco	\$ (42,263)	\$ 30,928	\$ 127,987	\$ 361,760	\$ (15,567)
Income (loss) per common share attributable to Veeco:					
Basic:					
Continuing operations	\$ (1.09)	\$ 0.69	\$ 4.80	\$ 7.02	\$ (0.05)
Discontinued operations		0.11	(1.57)	2.14	(0.43)
Income (loss)	\$ (1.09)	\$ 0.80	\$ 3.23	\$ 9.16	\$ (0.48)
Diluted :					