

FEDERAL SIGNAL CORP /DE/  
Form 10-K  
February 29, 2016  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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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, 2015

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 1-6003

FEDERAL SIGNAL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

36-1063330

(State or other jurisdiction of incorporation or organization)

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

1415 West 22nd Street,

60523

Oak Brook, Illinois

(Zip Code)

(Address of principal executive offices)

Registrant's telephone number, including area code (630) 954-2000

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

Title of Each Class

Name of Each Exchange on Which Registered

Common Stock, par value \$1.00 per share

New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, 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 shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this

Form 10-K.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>	
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>	(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 Act). Yes  No

As of June 27, 2015, the aggregate market value of voting stock held by non-affiliates was \$944,481,371. For purposes of the foregoing calculation only, executive officers and directors of the registrant have been deemed to be affiliates.

As of January 31, 2016, the number of shares outstanding of the registrant's common stock was 62,427,675.

**Documents Incorporated By Reference**

Portions of the registrant's definitive proxy statement for the 2016 Annual Meeting of Stockholders to be held on April 26, 2016 are incorporated by reference in Part III.

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**FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K (“Form 10-K”) is being filed by Federal Signal Corporation and its subsidiaries (referred to collectively as the “Company,” “we,” “our” or “us” herein, unless the context otherwise indicates) with the United States (“U.S.”) Securities and Exchange Commission (the “SEC”), and includes comments made by management that may contain words such as “may,” “will,” “believe,” “expect,” “anticipate,” “intend,” “plan,” “project,” “estimate” and “objective” terminology, or the negative thereof, concerning the Company’s future financial performance, business strategy, plans, goals and objectives. These expressions are intended to identify forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and the Private Securities Litigation Reform Act of 1995.

Forward-looking statements include information concerning the Company’s possible or assumed future performance or results of operations and are not guarantees. While these statements are based on assumptions and judgments that management has made in light of industry experience as well as perceptions of historical trends, current conditions, expected future developments and other factors believed to be appropriate under the circumstances, they are subject to risks, uncertainties and other factors that may cause the Company’s actual results, performance or achievements to be materially different.

These risks and uncertainties, some of which are beyond the Company’s control, include the cyclical nature of the Company’s industrial, municipal, governmental and commercial markets; compliance with domestic and foreign laws and regulations, economic and political uncertainties and foreign currency rate fluctuations; restrictive debt covenants; availability of credit and third-party financing for customers; our ability to anticipate and meet customer demands for new products and product enhancements and the resulting products generating sufficient revenues to justify research and development expenses; our incurrence of restructuring and impairment charges as we continue to evaluate opportunities to restructure our business; highly competitive markets; increased product liability, warranty, recall claims, client service interruptions and other lawsuits and claims; technological advances by competitors; information technology security threats and cyber-attacks; infringement of, or an inability to protect, our intellectual property rights; disruptions in the supply of parts and components from suppliers and subcontractors; attraction and retention of key personnel; disruptions within our dealer network; work stoppages and other labor relations matters; increased pension funding requirements and expenses beyond our control; costs of compliance with environmental and safety regulations; our ability to use net operating loss and tax credit carryforwards to reduce future tax payments; charges related to goodwill; our ability to expand our business through successful future acquisitions; and unknown or unexpected contingencies in our business or in businesses acquired by us. These risks and uncertainties include, but are not limited to, the risk factors described under Item 1A, Risk Factors as set forth in Part I, as well as those discussed elsewhere in this Form 10-K. These factors may not constitute all factors that could cause actual results to differ materially from those discussed in any forward-looking statement. The Company operates in a continually changing business environment and new factors emerge from time to time. The Company cannot predict such factors, nor can it assess the impact, if any, of such factors on its results of operations, financial condition or cash flow. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results. The Company disclaims any responsibility to update any forward-looking statement provided in this Form 10-K.

**ADDITIONAL INFORMATION**

The Company is subject to the reporting and information requirements of the Exchange Act and, as a result, is obligated to file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other reports and information with the SEC, as well as amendments to those reports. The Company makes these filings available free of charge through our website at [www.federsignal.com](http://www.federsignal.com) as soon as reasonably practicable after such materials are filed with, or furnished to, the SEC. Information on our website does not constitute part of this Form 10-K. In addition, the SEC maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically. All materials that we file with, or furnish to, the SEC may also be read or copied at the SEC’s Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the

SEC at 1-800-SEC-0330.

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PART I

Item 1. Business.

Federal Signal Corporation, founded in 1901, was reincorporated as a Delaware corporation in 1969. The Company designs and manufactures a suite of products and integrated solutions for municipal, governmental, industrial and commercial customers. The Company's portfolio of products includes sewer cleaners, vacuum trucks, street sweepers, waterblasters, safety and security systems, including technology-based products and solutions for the public safety market. In addition, we sell parts and provide service, repair, equipment rentals and training as part of a comprehensive offering to our customers. Federal Signal Corporation and its subsidiaries operate nine principal manufacturing facilities in four countries around the world and provide products and integrated solutions to customers in all regions of the world.

Narrative Description of Business

Products manufactured and services rendered by the Company are divided into two major operating segments: the Environmental Solutions Group and the Safety and Security Systems Group. The individual operating businesses are organized as such because they share certain characteristics, including technology, marketing, distribution and product application, which create long-term synergies. Corporate contains those items that are not included in our operating segments.

Financial information concerning the Company's two operating segments for each of the three years in the period ended December 31, 2015, is included in Note 13 – Segment Information to the accompanying consolidated financial statements and is incorporated herein by reference. Information regarding the Company's discontinued operations is included in Note 14 – Discontinued Operations to the accompanying consolidated financial statements and is incorporated herein by reference.

Environmental Solutions Group

Our Environmental Solutions Group is a leading manufacturer and supplier of a full range of street sweeper vehicles, sewer cleaner and vacuum loader trucks, hydro-excavation trucks and high-performance waterblasting equipment. Products are sold to both municipal and industrial customers under the Elgin®, Vactor®, Guzzler® and Jetstream™ brand names. The Group manufactures vehicles and equipment in the U.S.

Under the Elgin brand name, the Company sells a leading U.S. brand of street sweepers primarily designed for large-scale cleaning of curbed streets, parking lots and other paved surfaces utilizing mechanical sweeping, vacuum and recirculating air technology. Vactor is a leading manufacturer of vacuum trucks used to maintain sewer lines, catch basins and storm sewers, as well as hydro-excavation trucks to meet the need for safe and non-destructive excavation. Guzzler is a leader in industrial vacuum loaders used to manage industrial waste or recover and recycle valuable raw materials. Jetstream manufactures high pressure waterblast equipment and accessories for commercial and industrial cleaning and maintenance operations.

In addition to equipment sales, the Group engages in the sale of parts, service and repair, equipment rentals and training as part of a complete offering to its customers under the FS Solutions<sup>SM</sup> brand.

Safety and Security Systems Group

Our Safety and Security Systems Group is a leading manufacturer and supplier of comprehensive systems and products that law enforcement, fire rescue, emergency medical services, campuses, military facilities and industrial sites use to protect people and property. Offerings include systems for campus and community alerting, emergency vehicles, first responder interoperable communications and industrial communications, as well as command and municipal networked security. Specific products include vehicle lightbars and sirens, public warning sirens, general alarm systems, public address systems and public safety software. Products are sold under the Federal Signal™, Federal Signal VAMA™ and Victor™ brand names. The Group operates manufacturing facilities in the U.S., Europe and South Africa.

Discontinued Fire Rescue Group

As discussed in the notes to the consolidated financial statements included under Item 8 of Part II of this Form 10-K, on January 29, 2016, the Company completed the sale of the Bronto Skylift® business (“Bronto”) that represented the

Fire Rescue Group. The consolidated financial statements for all periods presented have been recast to present the operating results of previously divested or exited businesses, including the Fire Rescue Group, as discontinued operations. In addition, disclosures and historical financial information included in Parts I, II and IV of this Form 10-K have been adjusted to exclude information related to the Fire Rescue Group. See Note 14 – Discontinued Operations to the accompanying consolidated financial statements for further details.

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### Marketing and Distribution

The Environmental Solutions Group uses either a dealer network or direct sales to service customers generally depending on the type and geographic location of the customer. The Environmental Solutions Group's direct sales channel concentrates on the industrial, utility and construction market segments, while the dealer network focuses primarily on the municipal market. Dealer representatives demonstrate the vehicles' functionalities and capabilities to customers and service the vehicles on a timely basis. The Company believes its national and global dealer networks for vehicles distinguish it from its competitors.

The Safety and Security Systems Group sells to industrial customers through wholesalers and distributors who are supported by Company sales personnel and/or independent manufacturers' representatives. Products are also sold to municipal and governmental customers through active independent distributors, as well as through original equipment manufacturers and direct sales. The Company sells comprehensive integrated warning and interoperable communications through a combination of a direct sales force and distributors. International sales are made through the Group's independent foreign distributors or on a direct basis.

### Customers and Backlog

Total orders in 2015 were \$686.1 million, of which approximately 47% were to U.S. municipal and governmental customers, 26% were to U.S. commercial and industrial customers and 27% were to non-U.S. customers. No single customer accounted for 10% or more of the Company's business.

During 2015, the Company's U.S. municipal and governmental orders decreased by 11% compared to 2014 levels, primarily attributable to fewer large fleet orders for street sweepers and sewer cleaners. During 2014, the Company's U.S. municipal and governmental orders increased by 21% compared to 2013, primarily driven by improved orders of our street sweeper and sewer cleaner products and generally solid municipal demand.

During 2015, the Company's U.S. commercial and industrial orders decreased by 30% from 2014, in large part due to lower vacuum truck orders, which were adversely impacted, directly and indirectly, by softness in oil and gas markets and, to a lesser extent, other industrial markets. During 2014, the Company's U.S. commercial and industrial orders increased by 14% when compared to 2013 levels, largely attributable to higher orders of vacuum trucks, including hydro-excavation products.

During 2015, the Company's non-U.S. orders decreased by 3% from 2014. This compared to an increase of 5% in non-U.S. orders in 2014 versus 2013. Non-U.S. municipal and governmental markets are similar to the U.S. municipal and governmental markets in that they are largely dependent on tax revenues to support spending and orders may be subject to public-entity bid procedures. Of the Company's non-U.S. orders received in 2015, there were approximately 41% from Canada, 26% from Europe, 17% from the Middle East and Africa and less than 10% from any other particular region.

The Company's backlog totaled \$171.3 million at December 31, 2015 compared to \$254.7 million at December 31, 2014. Backlogs vary by Group due to the nature of the Company's products and the buying patterns of its customers. The Environmental Solutions Group has experienced an average backlog that can range from four to five months of shipments and the Safety and Security Systems Group typically experiences an average backlog of approximately two months of shipments. Production of the Company's December 31, 2015 backlog is expected to be substantially completed during 2016.

### Suppliers

The Company purchases a wide variety of raw materials from around the world for use in the manufacture of its products, although the majority of current purchases are from North American sources. To minimize risks relating to availability, price and quality of key products and components, the Company is party to numerous strategic supplier arrangements. Although certain materials are obtained from either a single-source supplier or a limited number of suppliers, the Company has generally identified alternative sources to minimize the interruption of its business in the event of supply disruptions.

Components critical to the production of the Company's vehicles, such as engines, are purchased from a select number of suppliers. The Company also purchases raw and fabricated steel as well as commercial chassis from multiple



sources.

The Company believes it has adequate supplies or sources of availability of the raw materials and components necessary to meet its needs. However, there are risks and uncertainties with respect to the supply of certain raw materials and components that could impact their price, quality and availability in sufficient quantities.

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Competition

Within the Environmental Solutions Group, Elgin is recognized as a market leader among several domestic sweeper competitors and differentiates itself primarily on product performance. The Vactor and Guzzler brands each maintain a leading domestic position in their respective marketplaces by enhancing product performance with leading technology and application flexibility. Jetstream is a market leader in the in-plant cleaning segment of the U.S. waterblast industry, competing on product performance, rapid delivery and solutions services.

Within specific product categories and domestic markets, the businesses within the Safety and Security Systems Group are among the leaders with between one and four significant competitors and additional ancillary market participants. The Group's international market position varies from leader to ancillary participant depending on the geographic region and product line. Generally, competition is intense within all of the Group's product lines and purchase decisions are made based on competitive bidding, price, features, reputation, performance and service.

Research and Development

The Company invests in research to support the development of new products and the enhancement of existing products and services. The Company believes this investment is important to maintain and/or enhance its leadership position in key markets. Expenditures for research and development by the Company were \$14.0 million in 2015, \$13.1 million in 2014 and \$11.0 million in 2013, and were reported within Selling, engineering, general and administrative ("SEG&A") expenses on the Consolidated Statement of Operations.

Patents and Trademarks

The Company owns a number of patents and possesses rights under others to which it attaches importance, but it does not believe that its business as a whole is materially dependent upon any such patents or rights. The Company also owns a number of trademarks, including those listed within the "Narrative Description of Business" section above. We believe these trademarks are important in connection with the identification of our products and associated goodwill with customers, but no material part of the Company's business is dependent on our trademarks.

Employees

The Company employed approximately 2,200 people in its businesses at December 31, 2015 with the Company's U.S. hourly workers accounting for approximately 48% of its total workforce. Approximately 24% of the Company's U.S. hourly workers were represented by unions at December 31, 2015. We believe that our labor relations with our employees are good.

Governmental Regulation of the Environment

The Company believes it substantially complies with federal, state and local provisions that have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment. Capital expenditures in 2015 attributable to compliance with such laws were not material. The Company believes that the overall impact of compliance with environmental regulations will not have a material adverse effect on our financial position, results of operations or cash flow.

In May 2012, the Company sold a facility in Pearland, Texas. The facility was previously used by the Company's discontinued Pauluhn business, which manufactured marine, offshore and industrial lighting products. While the Company has not finalized its plans, it is probable that the site will require remediation. As of December 31, 2015 and 2014, \$0.9 million and \$1.3 million, respectively, of reserves related to the environmental remediation of the Pearland facility are included in liabilities of discontinued operations on the Consolidated Balance Sheets. The Company's estimate may change as more information becomes available; however, the costs are not expected to have a material adverse effect on the Company's results of operations, financial position or cash flow.

Seasonality

Certain of the Company businesses are susceptible to the influences of seasonal buying or delivery patterns. The Company tends to have lower sales in the first quarter compared to other quarters as a result of these influences.

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Executive Officers of the Registrant

The following is a list of the Company's executive officers, their ages, business experience and positions as of February 15, 2016:

Dennis J. Martin, age 65, was appointed Executive Chairman of the Board of Directors effective January 1, 2016. Mr. Martin previously served as President and Chief Executive Officer from October 2010 to December 31, 2015. Mr. Martin was originally appointed to the Board of Directors in March 2008. Mr. Martin had been an independent business consultant from 2005 to October 2010 and was the Chairman, President and Chief Executive Officer of General Binding Corporation from 2001 to 2005.

Jennifer L. Sherman, age 51, was appointed President and Chief Executive Officer effective January 1, 2016. Ms. Sherman was also appointed to the Board of Directors effective January 1, 2016. Since joining the Company in 1994, Ms. Sherman has served in various roles of increasing responsibility, most recently as Senior Vice President and Chief Operating Officer from April 2014 to December 31, 2015. Ms. Sherman also previously served as Senior Vice President, Chief Administrative Officer, General Counsel and Secretary from 2010 to April 2014, Senior Vice President, Human Resources, General Counsel and Secretary from 2008 to 2010, and Vice President, General Counsel and Secretary from 2004 to 2008.

Matthew B. Brady, age 48, was appointed Senior Vice President of the Safety and Security Systems Group in February 2016. Mr. Brady joined the Company in 2006, serving most recently as the Vice President and General Manager of the Integrated Systems Division within the Safety and Security Systems Group. Prior to joining the Company, Mr. Brady served as a Director at Motorola Solutions, Inc.

Julie A. Cook, age 54, was appointed Vice President, Human Resources in September 2012. Ms. Cook served as Johnson Controls, Inc.'s Director of Human Resources, Building Efficiency Programs and then Vice President of Human Resources, Global Manufacturing, Supply Chain and Communications, from 2010 through 2012. Ms. Cook previously served as the Company's Environmental Solutions Group Vice President of Human Resources with responsibility for Corporate Human Resources from 2008 through 2010. Ms. Cook was Group Vice President of Human Resources for the Environmental Solutions Group from 2001 to 2007.

Brian S. Cooper, age 59, was appointed Senior Vice President and Chief Financial Officer in May 2013. Prior to joining the Company, Mr. Cooper served as Chief Financial Officer of Westell Technologies, Inc. from 2009 to 2013. Prior to Westell, Mr. Cooper served as Chief Financial Officer of Fellowes, Inc. from 2007 to 2009 and as Senior Vice President and Treasurer of United Stationers Inc. from 2001 to 2007. Prior to joining United Stationers, Mr. Cooper served as Treasurer of Burns International Services Corporation, and held various financial positions during his 12-year tenure with Amoco Corporation.

Daniel A. DuPré, age 59, was appointed Vice President, General Counsel and Secretary in November 2015. Mr. DuPré joined the Company in 2006, most recently serving as its Deputy General Counsel. Mr. DuPré previously held senior legal positions at Sears Holdings Corporation, Bank One Corporation, and Brunswick Corporation and served as an Assistant United States Attorney for the Northern District of Illinois.

Ian A. Hudson, age 39, was appointed Vice President and Corporate Controller in August 2013. Prior to joining the Company, Mr. Hudson served as Director of Accounting – Latin America and Asia Pacific at Groupon, Inc. from June 2012 to August 2013. Prior to that role, Mr. Hudson worked at Ernst & Young, LLP from 1998 to 2012, most recently as Senior Audit Manager.

Samuel E. Miceli, age 49, was appointed Senior Vice President of the Environmental Solutions Group in November 2015. Mr. Miceli joined the Company in 1993, serving most recently as the Vice President and General Manager of Vactor/Guzzler, with previous responsibility for the operations of Elgin Sweeper.

Svetlana Vinokur, age 36, was appointed Vice President, Treasurer and Corporate Development in April 2015. Prior to joining the Company, Ms. Vinokur worked as Assistant Treasurer at Illinois Tool Works Inc. Prior to that role, Ms. Vinokur served as Finance Head of M&A Strategy at Mead Johnson Nutrition Company and as a senior associate for Robert W. Baird & Company's Consumer and Industrial Investment Banking group. Ms. Vinokur started her career at Ford Motor Company, serving in various finance roles.

These officers hold office until the next annual meeting of the Board of Directors following their election and until their successors have been elected and qualified.

There are no family relationships among any of the foregoing executive officers.

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Item 1A. Risk Factors.

We may occasionally make forward-looking statements and estimates such as forecasts and projections of our future performance or statements of our plans and objectives. These forward-looking statements may be contained in, but are not limited to, filings with the SEC, including this Form 10-K, press releases made by us and oral statements made by our officers. Actual results could differ materially from those contained in such forward-looking statements. Important factors that could cause our actual results to differ from those contained in such forward-looking statements include, but are not limited to, the risks described below.

Our financial results are subject to U.S. economic uncertainty.

In 2015, we generated approximately 75% of our net sales in the U.S. Our ability to be profitable depends heavily on varying conditions in the U.S. governmental and municipal markets, as well as the overall U.S. economy. The industrial markets in which we compete are subject to considerable cyclicity, and move in response to cycles in the overall business environment. Many of our customers are municipal government agencies, and as a result, we are dependent on municipal government spending. Spending by our municipal customers can be affected by local political circumstances, budgetary constraints and other factors. The U.S. government and municipalities depend heavily on tax revenues as a source of spending and accordingly, there is a historical correlation that suggests a lag of one or two years between the condition of the U.S. economy and our sales to the U.S. government and municipalities. Therefore, downturns in the U.S. economy are likely to result in decreases in demand for our products. During previous economic downturns, we experienced decreases in sales and profitability, and we expect our business to remain subject to similar economic fluctuations in the future.

We have international operations that are subject to compliance with domestic and foreign laws and regulations, economic and political uncertainties and foreign currency rate fluctuations.

Our business is subject to fluctuations in demand and changing international economic, legal and political conditions that are beyond our control. In 2015, approximately 25% of our net sales were to customers outside the U.S. and we expect a significant portion of our revenues to come from international sales in the foreseeable future. Operating in the international marketplace exposes us to a number of risks, including the need to comply with U.S. and foreign laws and regulations applicable to our foreign operations, such as the Foreign Corrupt Practices Act, the United Kingdom (“U.K.”) Bribery Act and their counterparts in other foreign jurisdictions in which we operate, restrictive domestic and international trade regulations, including the imposition of tariffs and trade barriers on our products, changes in these laws, regulations and policies by the U.S. and foreign governments, political and economic instability in the jurisdictions in which we operate, foreign receivables collection risk, local labor market conditions, and, in some cases, international hostilities. The costs of compliance with these various laws, regulations and policies can be significant and penalties for non-compliance could significantly impact our business.

To the extent that our international operations are affected by adverse foreign economic or political conditions, we may experience disruptions and losses which could have a material impact on our financial position, results of operations or cash flow. To mitigate the risk of foreign receivables collection, we may obtain letters of credit from international customers to satisfy concerns regarding the collectibility of amounts billed to customers.

Some of our contracts are denominated in foreign currencies, which may expose us to risks of fluctuating currency values and exchange rates, hard currency shortages and controls on currency exchange. Changes in the value of foreign currencies over the long term could increase our U.S. dollar costs for, or reduce our U.S. dollar revenues from, our foreign operations. Any increased costs or reduced revenues as a result of foreign currency fluctuations could adversely affect our results of operations.

We are subject to a number of restrictive debt covenants.

In January 2016, we entered into a new five-year credit facility. The credit facility contains certain restrictive debt covenants and customary events of default. Our ability to comply with these restrictive covenants may be affected by the other factors described in this “Risk Factors” section, as well as other factors outside of our control. Failure to comply with one or more of these restrictive covenants may result in an event of default which, if not cured by us or waived by our lenders, allows our lenders to declare all amounts outstanding as due and payable. Such an acceleration

of the maturity of our indebtedness may prevent or limit us from engaging in transactions that benefit us, including responding to changing business and economic conditions and taking advantage of attractive business opportunities. The execution of our growth strategy is dependent upon the continued availability of credit and third-party financing arrangements for our customers.

Economic downturns result in tighter credit markets, which could adversely affect our customers' ability to secure financing or to secure financing at favorable terms or interest rates necessary to proceed or continue with purchases of our products and

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services. Our customers' or potential customers' inability to secure financing for projects could result in the delay, cancellation or downsizing of new purchases or the suspension of purchases already under contract, which could cause a decline in the demand for our products and services and negatively impact our financial position, results of operations or cash flow.

Our efforts to develop new products and services or enhance existing products and services involve substantial research, development and marketing expenses, and the resulting new or enhanced products or services may not generate sufficient revenues to justify the expense.

We place a high priority on developing new products and services, as well as enhancing our existing products and services. As a result of these efforts, we may be required to expend substantial research, development and marketing resources, and the time and expense required to develop a new product or service or enhance an existing product or service are difficult to predict. We may not succeed in developing, introducing or marketing new products or services or product or service enhancements. In addition, we cannot be certain that any new or enhanced product or service will generate sufficient revenue to justify the expense and resources devoted to this product diversification effort.

We could incur restructuring and impairment charges as we continue to evaluate opportunities to restructure our business and rationalize our manufacturing operations in an effort to optimize our cost structure.

We continue to evaluate opportunities to restructure our business and rationalize our manufacturing operations in an effort to optimize our cost structure. These actions could result in significant charges that could adversely affect our financial condition and results of operations. Future actions could result in restructuring and related charges, including but not limited to impairments, employee termination costs and charges for pension and other postretirement contractual benefits and pension curtailments that could be significant and could have an adverse effect on our financial condition, results of operations or cash flow.

We operate in highly competitive markets.

The markets in which we operate are highly competitive. Many of our competitors have significantly greater financial resources than we do. The intensity of this competition, which is expected to continue, can result in price discounting and margin pressures throughout the industry and may adversely affect our ability to increase or maintain prices for our products. In addition, certain of our competitors may have lower overall labor or material costs. In some cases, our contracts with municipal and other governmental customers are awarded and renewed through competitive bidding. We may not be successful in obtaining or renewing these contracts, which could have an adverse effect on our financial condition, results of operations or cash flow.

We may incur material losses and costs as a result of product liability, warranty, recall claims, client service interruption or other lawsuits or claims that may be brought against us.

We are exposed to product liability and warranty claims in the normal course of business in the event that our products actually or allegedly fail to perform as expected, or the use of our products results, or is alleged to result, in bodily injury and/or property damage. For example, we have been sued by firefighters seeking damages claiming that exposure to our sirens has impaired their hearing and that the sirens are, therefore, defective. In addition, we are subject to other claims and litigation from time to time as further described in the accompanying notes to our consolidated financial statements. We could experience material warranty or product liability costs in the future and incur significant costs to defend ourselves against these claims. While we carry insurance and maintain reserves for product liability claims, our insurance coverage may be inadequate if such claims do arise, and any defense costs and liability not covered by insurance could have a material adverse impact on our financial condition, results of operations or cash flow. A future claim could involve the imposition of punitive damages, the award of which, pursuant to state laws, may not be covered by insurance. In addition, warranty and certain other claims are not typically covered by insurance. Any product liability or warranty issues may adversely impact our reputation as a manufacturer of high quality, safe products and may have a material adverse effect on our business.

Failure to keep pace with technological developments may adversely affect our operations.

We are engaged in an industry that will be affected by future technological developments. The introduction of products or processes utilizing new technologies could render our existing products or processes obsolete or

unmarketable. Our success will depend upon our ability to develop and introduce on a timely and cost-effective basis new products, applications and processes that keep pace with technological developments and address increasingly sophisticated customer requirements. We may not be successful in identifying, developing and marketing new products, applications and processes and product or process enhancements. We may experience difficulties that could delay or prevent the successful development, introduction and marketing of product or process enhancements or new products, applications or processes. Our products, applications or processes may not adequately meet the requirements of the marketplace and achieve market acceptance. Our financial

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condition, results of operations or cash flow could be materially and adversely affected if we were to incur delays in developing new products, applications or processes or product or process enhancements, or if our products do not gain market acceptance.

Increased information technology security threats and more sophisticated cyber-attacks pose a risk to our systems, networks, products and operations.

We have observed a global increase in information technology security threats and more sophisticated cyber-attacks. Our business could be impacted by such disruptions, which in turn could pose a risk to the security of our systems and networks and the confidentiality, accessibility and integrity of information stored and transmitted on those systems and networks. We have adopted measures to address cyber-attacks and mitigate potential risks to our systems from these information technology-related disruptions. However, given the unpredictability of the timing, nature and scope of such disruptions, our systems and networks remain potentially vulnerable to attacks. Depending on their nature and scope, such attacks could potentially lead to the compromising of confidential information, misuse of our systems and networks, manipulation and destruction of data, production stoppages and supply shortages, which in turn could adversely affect our reputation, financial condition, results of operations or cash flow.

Infringement of, or an inability to protect, our intellectual property rights could adversely affect our business.

We rely on a combination of patents, trademarks, copyrights, nondisclosure agreements, information technology security systems, physical security and other measures to protect our proprietary intellectual property and the intellectual property of certain customers and suppliers. However, we cannot be certain that our efforts to protect these intellectual property rights will be sufficient. Intellectual property protection is subject to applicable laws in various jurisdictions where interpretations and protections differ or can be unpredictable and costly to enforce. Further, our ability to protect our intellectual property rights may be limited in certain foreign jurisdictions that do not have, or do not enforce, strong intellectual property rights. Any failure to protect or enforce our intellectual property rights could have a material adverse effect on our competitive position, financial condition, results of operations or cash flow.

The inability to obtain raw materials, component parts and/or finished goods in a timely and cost-effective manner from suppliers would adversely affect our ability to manufacture and market our products.

We purchase from suppliers raw materials and component parts to be used in the manufacturing of our products. In addition, we purchase certain finished goods from suppliers. Changes in our relationships with suppliers, shortages, production delays, regulatory restrictions or work stoppages by the employees of such suppliers could have a material adverse effect on our ability to timely manufacture and market products. In addition, increases in the costs of purchased raw materials, component parts or finished goods could result in manufacturing interruptions, delays, inefficiencies or our inability to market products. In addition, our profit margins would decrease if prices of purchased raw materials, component parts or finished goods increase and we are unable to pass on those increases to our customers.

Our ability to operate effectively could be impaired if we fail to attract and retain key personnel.

Our ability to operate our businesses and implement our strategies depends in part on the efforts of our executive officers and other key employees. In addition, our future success will depend on, among other factors, our ability to attract and retain qualified personnel, including finance personnel, research professionals, technical sales professionals and engineers. The loss of the services of any key employee or the failure to attract or retain other qualified personnel could have a material adverse effect on our business or business prospects.

Disruptions within our dealer network or the inability of our dealers to secure adequate access to capital could adversely affect our business.

We rely on national and global dealer networks to market certain of our products and services. A disruption in our dealer network, or with a significant dealer, or within a specific market, could have an adverse impact on our business within the affected market. In addition, our dealers require adequate liquidity to finance their operations, including purchases of our products. Dealers are subject to numerous risks and uncertainties that could unfavorably affect their liquidity positions, including, among other things, continued access to adequate financing sources on a timely basis on reasonable terms. These sources of financing are vital to our ability to sell products through our dealer network.

Deterioration in the liquidity or credit worthiness of our dealers could have a significant adverse effect on our business and could, in some limited cases, trigger repurchase obligations under an existing agreement with a third-party finance company that provides financing to certain of our dealers to support the purchase of our products. The loss or termination of a significant dealer, or a significant number of dealers, could cause difficulties in marketing and distributing our products and have an adverse effect on our business, financial condition, results of operations or cash flow.

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Our business may be adversely impacted by work stoppages and other labor relations matters.

We are subject to risk of work stoppages and other labor relations matters because a portion of our workforce is unionized. As of December 31, 2015, approximately 24% of our U.S. hourly workers were represented by labor unions and were covered by collective bargaining agreements. Many of these agreements include provisions that limit our ability to realize cost savings. Our current collective bargaining agreement with the International Brotherhood of Electrical Workers is due to expire in April 2016. Any strikes, threats of strikes or other organized disruptions in connection with the negotiation of new labor agreements or other negotiations could materially adversely affect our business as well as impair our ability to implement further measures to reduce costs and improve production efficiencies.

Our pension funding requirements and expenses are affected by certain factors outside of our control, including the performance of plan assets, the discount rate used to value liabilities, actuarial assumptions and experience and legal and regulatory changes.

Our funding obligations and pension expense for our defined benefit pension plans are driven by the performance of assets set aside in trusts for these plans, the discount rate used to value the plans' liabilities, actuarial assumptions and experience and legal and regulatory funding requirements. Changes in these factors could have an adverse impact on our financial condition, results of operations or cash flow. In addition, a portion of our pension plan assets are invested in equity securities, which can experience significant declines if financial markets weaken. The level of the funding of our defined benefit pension plan liabilities was approximately 79% as of December 31, 2015. The current year funding status was impacted by higher discount rates. Our future pension expenses and funding requirements could increase significantly due to the effect of adverse changes in the discount rate, asset values or the estimated expected return on plan assets. In addition, we could be legally required to make increased cash contributions to the pension plans, and these contributions could be material and negatively affect our cash flow.

The costs associated with complying with environmental and safety regulations could lower our margins.

We, like other manufacturers, continue to face heavy governmental regulation of our products, especially in the areas of the environment and employee health and safety. Complying with environmental and safety requirements has added and will continue to add to the cost of our products, and could increase the capital required to support our business. While we believe that we are in compliance in all material respects with these laws and regulations, we may be adversely impacted by costs, liabilities or claims with respect to our operations under existing laws or those that may be adopted. These requirements are complex, change frequently and have tended to become more stringent over time. Therefore, we could incur substantial costs, including cleanup costs, fines and civil or criminal sanctions as a result of violation of, or liabilities under, environmental laws and safety regulations. These requirements may increase the cost of our products, which may diminish demand for those products. In addition, uneven application of environmental or safety regulations could place our products at a cost or features disadvantage, which could reduce our revenues and profitability.

Our ability to use net operating loss and tax credit carryforwards to reduce future tax payments could be negatively impacted if there is a change in our ownership or a failure to generate sufficient taxable income.

Presently, the only U.S. federal net operating loss carryforwards ("NOLs") we have remaining are from previously acquired companies and hence are limited to specific annual amounts as permitted by Section 382 of the Internal Revenue Code of 1986, as amended ("Section 382"). If an ownership change, as defined in Section 382, occurs with respect to our capital stock, our ability to use these NOLs could be further limited to more restrictive specific annual amounts. Generally, an ownership change occurs if certain persons or groups increase their aggregate ownership by more than 50% of our total capital stock in a three-year period. If more than a 50% ownership change were to occur, use of our NOLs to reduce payments of federal tax may be deferred to later years within the 20-year carryover period; however, if the carryover period for any loss year expires, the use of the remaining NOLs for the loss year will be prohibited. If we should fail to generate a sufficient level of taxable income prior to the expiration of the applicable NOL carryforward periods, then we will lose the ability to apply the NOLs as offsets to future taxable income. We also have a significant amount of tax credit carryforwards ("tax credits") which are generally available to offset future

U.S. income tax. The usage of these tax credits is subject to similar limitations upon a change in ownership. As of December 31, 2015, our tax credits totaled \$13.1 million and had various carryforward periods, with the majority beginning to expire in approximately six years.

An impairment in the carrying value of goodwill could negatively affect our financial position and results of operations.

We have a substantial amount of goodwill, which is recorded at fair value at the time of acquisition and is not amortized, but is reviewed for impairment at least annually or more frequently if impairment indicators arise. In evaluating the potential for impairment of goodwill, we make assumptions regarding future operating performance, business trends, competition and market and general economic conditions. Such analyses further require us to make certain assumptions about our sales, operating margins, growth rates and discount rates. There are inherent uncertainties related to these factors and in applying

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these factors to the assessment of goodwill recoverability. Goodwill reviews are prepared using estimates of the fair value of reporting units, which incorporate estimates of the present value of future discounted cash flow. We could be required to evaluate the recoverability of goodwill prior to the annual assessment if we experience disruptions to the business, unexpected significant declines in operating results, a divestiture of a significant component of our business or our market capitalization declines.

If the future operating performance of our reporting units is not consistent with our assumptions, we could be required to record non-cash impairment charges. Impairment charges could substantially affect our total consolidated assets and results of operations in the periods such charges are recorded. As of December 31, 2015, total consolidated goodwill was approximately 35% of total consolidated assets.

We may be unsuccessful in our future acquisitions, if any, which may have an adverse effect on our business. Our long-term strategy includes exploring acquisition of companies or businesses to facilitate our growth, enhance our global market position and broaden our product offerings. Such acquisitions may help us expand into adjacent markets, add complementary products and services or allow us to leverage our distribution channels. In connection with this strategy, we could face certain risks and uncertainties in addition to those we face in the day-to-day operations of our business. We also may be unable to identify suitable targets for acquisition or to make acquisitions at favorable prices. If we identify a suitable acquisition candidate, our ability to successfully implement the acquisition would depend on a variety of factors, including our ability to obtain financing on acceptable terms. In addition, our acquisition activities could be disrupted by overtures from competitors for the targeted companies, governmental regulation and rapid developments in our industry that decrease the value of a potential target's products or services.

Acquisitions involve risks, including those associated with the following:

- integrating the operations, financial reporting, disparate systems and processes and personnel of acquired companies;
- managing geographically dispersed operations;
- diverting management's attention from other business concerns;
- changing the competitive landscape, including disrupting existing sales channels or markets;
- entering markets or lines of business in which we have either limited or no direct experience; and
- losing key employees, customers and strategic partners of acquired companies.

We also may not achieve anticipated revenue and cost benefits associated with our acquisitions. Acquisitions may not be accretive to our earnings and may negatively impact our results of operations as a result of, among other things, the incurrence of debt, acquisition costs, impairment of goodwill and amortization of other intangible assets. In addition, future acquisitions could result in dilutive issuances of equity securities.

Businesses acquired by us may have liabilities that are not known to us.

We may assume liabilities in connection with the acquisition of businesses. There may be liabilities that we fail or are unable to discover in the course of performing due diligence investigations on the acquired businesses, or that may be more material than we discovered. In these circumstances, we cannot assure that our rights to indemnification from the sellers of the acquired businesses to us will be sufficient in amount, scope or duration to fully offset the possible liabilities associated with the businesses or property acquired. Any such liabilities, individually or in the aggregate, could have a material adverse effect on our financial condition, results of operations or cash flow.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

As of December 31, 2015, the Company utilized six principal manufacturing plants located throughout the U.S., as well as two in Europe and one in South Africa. The Company also leases certain facilities within the U.S. and Europe from which we sell parts and/or provide service. As of December 31, 2015, the Company devoted approximately 0.9 million square feet to manufacturing and 0.5 million square feet to service, warehousing and office space. Of the total square footage, approximately 56% is devoted to the Environmental Solutions Group and 44% to the Safety and Security Systems Group. Approximately 19% of the total square footage is owned by the Company with the

remaining 81% being leased. Owned facilities are subject to lien under the Company's Amended and Restated Credit Agreement dated January 27, 2016 (the "2016 Credit Agreement").

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All of the Company's properties, as well as the related machinery and equipment, are considered to be well-maintained, suitable and adequate for their intended purposes. In the aggregate, these facilities are of sufficient capacity for the Company's current business needs.

## Item 3. Legal Proceedings.

The information concerning the Company's legal proceedings included in Note 9 – Legal Proceedings to the accompanying consolidated financial statements is incorporated herein by reference.

## Item 4. Mine Safety Disclosures.

Not applicable.

## PART II

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

## Market Information

The Company's common stock is listed and traded on the New York Stock Exchange ("NYSE") under the symbol "FSS". The following table presents a summary of the high and low market price per share of our common stock for each quarter of 2015 and 2014:

	2015		2014	
	High	Low	High	Low
1 <sup>st</sup> Quarter	\$17.44	\$14.44	\$15.42	\$11.53
2 <sup>nd</sup> Quarter	17.22	14.76	16.05	13.35
3 <sup>rd</sup> Quarter	15.49	12.42	15.41	13.24
4 <sup>th</sup> Quarter	17.23	13.27	15.97	11.66

## Holders

As of January 31, 2016, there were 1,753 holders of record of the Company's common stock.

## Dividends

In 2014, the Company's Board of Directors (the "Board") reinstated the Company's quarterly cash dividend. During 2015 and 2014, the Company declared and paid dividends totaling \$15.6 million and \$5.6 million, respectively. On February 9, 2016, the Board declared a quarterly cash dividend of \$0.07 per common share payable on March 17, 2016 to holders of record at the close of business on March 1, 2016.

The payment of future dividends is at the discretion of the Board and will depend, among other things, upon future earnings and cash flow, capital requirements, the Company's general financial condition, general business conditions and other factors, including compliance with restrictive debt covenants as described below.

On January 27, 2016, the Company entered into the 2016 Credit Agreement. Under the terms of the 2016 Credit Agreement, restricted payments, including dividends and stock repurchases, shall be permitted if (i) the Company's leverage ratio is less than or equal to 2.50, (ii) the Company is in compliance with all other financial covenants and (iii) there are no existing defaults under the 2016 Credit Agreement. If the leverage ratio is more than 2.50, the Company is still permitted to fund (i) up to \$30.0 million of dividend payments, (ii) stock repurchases sufficient to offset dilution created by the issuance of equity as compensation to its officers, directors, employees and consultants and (iii) an incremental \$30.0 million of other cash payments. For further discussion, see Note 5 – Debt to the accompanying consolidated financial statements.

The Company is able to declare dividends at current levels under the restricted payment guidelines set forth above.

## Securities Authorized for Issuance under Equity Compensation

Information concerning the Company's equity compensation plans is included under Item 12 of Part III of this Form 10-K.

## Recent Sales of Unregistered Securities

There were no sales of unregistered securities by the Company during the year ended December 31, 2015.





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## Purchases of Equity Securities

The following table provides a summary of the Company's repurchase activity for its common stock during the three months ended December 31, 2015:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs <sup>(a)</sup> <sup>(b)</sup>
October 2015 (9/27/15 - 10/31/15)	—	\$—	—	\$69,146,229
November 2015 (11/1/15 - 11/28/15)	—	—	—	69,146,229
December 2015 (11/29/15 - 12/31/15)	—	—	—	69,146,229

On April 22, 2014, the Board authorized a stock repurchase program of up to \$15 million of the Company's common stock. During the second quarter of 2015, cumulative stock repurchases under the April 2014 program <sup>(a)</sup> reached the maximum authorized level of \$15.0 million. No additional stock repurchases will be made under that program.

On November 4, 2014, the Board authorized an additional stock repurchase program of up to \$75 million of the <sup>(b)</sup> Company's common stock.

## Performance Graph

The following graph compares the cumulative five-year total return to stockholders of the Company's common stock relative to the cumulative total returns of the Russell 2000 index, the S&P Midcap 400 index and the S&P Industrials index. The graph assumes that the value of the investment in the Company's common stock, and in each index, was \$100 on December 31, 2010 and assumes reinvestment of all dividends through December 31, 2015.

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	As of December 31,					
	2010	2011	2012	2013	2014	2015
Federal Signal Corporation	\$100.00	\$60.50	\$110.93	\$213.56	\$226.45	\$236.29
Russell 2000	100.00	95.82	111.49	154.78	162.35	155.18
S&P Midcap 400	100.00	98.27	115.84	154.64	169.75	166.05
S&P Industrials	100.00	99.41	114.67	161.31	177.16	172.67

The stock price performance included in this graph is not necessarily indicative of future stock price performance. Notwithstanding anything set forth in any of our previous filings under the Securities Act or the Exchange Act, which might be incorporated into future filings in whole or part, including this Form 10-K, the preceding performance graph shall not be deemed incorporated by reference into any such filings.

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## Item 6. Selected Financial Data.

The following table summarizes selected financial information of the Company, which has been recast to present the Fire Rescue Group as a discontinued operation, as of and for each of the five years in the period ended December 31, 2015:

(\$ in millions, except per share data)	For the Years Ended December 31,					
	2015	2014	2013	2012	2011	
<b>Results of Operations:</b>						
Net sales	\$768.0	\$779.1	\$712.9	\$668.1	\$579.2	
Operating income <sup>(a) (c) (d)</sup>	103.2	88.7	61.6	42.6	26.6	
Income from continuing operations <sup>(a) (b) (c) (d)</sup>	65.8	59.7	152.5	15.5	8.1	
(Loss) gain from discontinued operations and disposal, net of tax	(2.3 )	4.0	7.5	(43.0 )	(22.3 )	
Net income (loss) <sup>(a) (b) (c) (d)</sup>	\$63.5	\$63.7	\$160.0	\$(27.5 )	\$(14.2 )	
<b>Financial Position:</b>						
Capital expenditures	\$9.6	\$13.7	\$11.6	\$9.9	\$10.6	
Depreciation and amortization	12.3	11.5	11.0	10.6	10.5	
Total assets	666.5	658.7	644.8	613.2	706.7	
Total debt <sup>(e)</sup>	44.1	50.2	92.1	157.8	217.4	
<b>Common Stock Data:</b>						
Diluted earnings per share — continuing operations	\$1.04	\$0.94	\$2.41	\$0.25	\$0.13	
Cash dividends per common share	0.25	0.09	—	—	—	
Weighted average shares outstanding — diluted (in millions)	63.4	63.6	63.2	62.7	62.2	
<b>Performance Measures:</b>						
Operating margin	13.4	% 11.4	% 8.6	% 6.4	% 4.6	%
Debt to adjusted EBITDA ratio <sup>(f)</sup>	0.4	0.5	1.3	2.9	5.9	
<b>Other Data:</b>						
Total orders	\$686.1	\$807.4	\$706.0	\$689.8	\$693.8	
Backlog	171.3	254.7	226.5	234.8	215.1	

2015 operating income includes restructuring charges of \$0.4 million. 2015 income from continuing operations includes a \$1.4 million net benefit from special tax items, comprised of a \$4.2 million net tax benefit associated with tax planning strategies, offset by a \$2.4 million adjustment of deferred tax assets and \$0.4 million of expense associated with a change in the enacted tax rate in the U.K.

2014 income from continuing operations includes the effects of a \$3.5 million release of valuation allowance that was previously recorded against the Company's foreign deferred tax assets.

2013 operating income includes restructuring charges of \$0.7 million. 2013 income from continuing operations includes the effects of the restructuring charges, as well as \$8.7 million of debt settlement charges and \$116.2 million of valuation allowance release. The Company's determination to release the valuation allowance on domestic deferred tax assets was based on a qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies and general business risks, that resulted in a more likely than not conclusion of being able to realize a significant portion of our U.S. deferred tax assets. In the fourth quarter of 2013, the Company also executed a tax planning strategy that resulted in the release of an additional \$6.7 million of valuation allowance that was previously recorded against the Company's foreign tax credits, which would have begun to expire in 2015.

2012 operating income includes restructuring charges of \$1.4 million. 2012 income from continuing operations includes the effects of the restructuring charges, as well as \$3.5 million of debt settlement charges.

(e)

Includes short-term borrowings, the current portion of long-term borrowings and capital lease obligations of \$0.4 million, \$6.2 million, \$7.4 million, \$5.0 million and \$4.3 million, respectively.

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The ratio of debt to adjusted EBITDA is a non-GAAP measure that represents total debt divided by the trailing 12-month total of income from continuing operations before interest expense, restructuring charges, debt settlement charges, other expense, income tax expense or benefit and depreciation and amortization expense. The Company uses the ratio to calibrate the magnitude of its debt and its debt capacity against adjusted EBITDA, which is used as an operating performance measure. We believe that investors use a version of this ratio in a similar manner. In addition, financial institutions (including the Company's lenders) use the ratio in connection with debt agreements to set pricing and covenant limitations. For these reasons, the Company believes that the ratio is a meaningful metric to investors in evaluating the Company's long-term financial performance and stability. Other companies may use different methods to calculate total debt to EBITDA. The following table summarizes the Company's ratio of total debt to adjusted EBITDA and reconciles income from continuing operations to adjusted EBITDA as of and for each of the five years in the period ended December 31, 2015:

(\$ in millions)	Trailing Twelve Months Ending December 31,				
	2015	2014	2013	2012	2011
Total debt	\$44.1	\$50.2	\$92.1	\$157.8	\$217.4
Income from continuing operations	\$65.8	\$59.7	\$152.5	\$15.5	\$8.1
Add:					
Interest expense	2.3	3.6	8.9	21.3	16.2
Restructuring	0.4	—	0.7	1.4	—
Debt settlement charges	—	—	8.7	3.5	—
Other expense, net	1.0	1.7	0.1	0.9	—
Income tax expense (benefit)	34.1	23.7	(108.6)	1.4	2.0
Depreciation and amortization	12.3	11.5	11.0	10.6	10.5
Adjusted EBITDA	\$115.9	\$100.2	\$73.3	\$54.6	\$36.8
Total debt to adjusted EBITDA ratio	0.4	0.5	1.3	2.9	5.9

The selected financial data set forth above should be read in conjunction with the Company's consolidated financial statements, including the notes thereto, and management's discussion and analysis of financial condition and results of operations, included under Item 8 of Part II of this Form 10-K and Item 7 of Part II of this Form 10-K, respectively.

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

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is designed to provide information that is supplemental to, and shall be read together with, the consolidated financial statements and the accompanying notes contained in this Form 10-K. Information in MD&A is intended to assist the reader in obtaining an understanding of (i) the consolidated financial statements, (ii) the Company's business segments and how the results of those segments impact the Company's results of operations and financial condition as a whole and (iii) how certain accounting principles affect the Company's consolidated financial statements.

Executive Summary

The Company is a leading global manufacturer and supplier of (i) sewer cleaners, vacuum trucks, street sweepers and other environmental vehicles and equipment and (ii) safety, security and communication equipment. We also are a designer and supplier of technology-based products and services for the public safety market. In addition, we sell parts and provide service, repair, equipment rentals and training as part of a comprehensive offering to our customer base. We operate nine manufacturing facilities in four countries around the world and provide products and integrated solutions to municipal, governmental, industrial and commercial customers in all regions of the world.

As described in Item 1 of Part I of this Form 10-K, the Company's business units are organized and managed in two operating segments: the Environmental Solutions Group and the Safety and Security Systems Group.

In 2015, the Company continued to focus on executing against its business strategy, which resulted in strong improvement in operating earnings. The Company continued to execute against a number of key long-term objectives, including the following:

• Creating disciplined growth;

- Improving manufacturing efficiencies and costs;

• Leveraging invested capital; and

• Diversifying our customer base.

The Company assessed achievement against these objectives in 2015 as follows:

Creating Disciplined Growth

Despite challenging conditions, including direct and indirect effects associated with reduced demand for our products in oil and gas markets, we improved operating income to \$103.2 million for the year. This was an increase of \$14.5 million, or 16%, on net sales that were 1% lower than prior-year levels.

We demonstrated our commitment to returning value to stockholders by doubling our quarterly dividend in the first quarter of 2015 and increasing it further in the fourth quarter of 2015. During the year, we paid dividends of \$15.6 million.

Under our authorized share repurchase programs, we repurchased approximately 725,000 shares in 2015 for a total of \$10.6 million. The remaining aggregate authorization under these programs of \$69.1 million at December 31, 2015 represents approximately 8% of our market capitalization.

Subsequent to December 31, 2015, we completed the sale of our Bronto Skylift business, initially receiving proceeds of approximately \$83 million, with the remaining purchase price of approximately \$4 million expected to be paid, in connection with the payment of the working capital and net debt adjustments, by the end of the second quarter of 2016. The sale will facilitate our focus on more profitable growth opportunities.

In addition, in January 2016, we executed a new five-year \$325 million revolving credit facility, to replace our existing \$225 million credit facility.

With our current capital structure, our strong balance sheet, the proceeds received from the sale of Bronto, and the liquidity available under our new credit agreement, we have greater financial flexibility to invest in internal growth initiatives, pursue strategic acquisitions and to consider ways to return value to stockholders.

We continue to apply a disciplined approach in considering potential acquisitions. In January 2016, we completed the acquisition of Westech Vac Systems, Ltd., a Canadian manufacturer of high-quality, rugged vacuum trucks. Although not significant in size, the acquisition provides access to new product offerings and new markets. We expect it to be

the first in a series of acquisitions, and it fits our strategy of acquiring capabilities that our core businesses can build upon.

Improving Manufacturing Efficiencies and Costs

Operating margin improved to 13.4% in 2015 from 11.4% in 2014 - a significant achievement on lower net sales.

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We continue to focus on reducing product costs and improving manufacturing efficiencies across all of our businesses. We started our “80/20” efficiency initiatives in 2010, and they have been a critical part of the steady improvement in our margins.

Our 80/20 initiatives have also helped us to focus on delivering the right products and services at the right prices to better capture the value-add that we create.

**Leveraging Invested Capital**

We remain focused on return on invested capital (“ROIC”) in 2015 and we continue to use an ROIC metric in our long-term incentive compensation programs. This increased focus contributed to a significant year-over-year improvement in ROIC, which we define as net operating profit after taxes divided by average invested capital.

We continue to adapt our flexible manufacturing model which allows us to shift production among facilities to optimize capacity and capabilities.

The sale of our Bronto Skylift business removed a low-margin operation that required a disproportionate amount of invested capital.

We continue to generate strong cash flow from our improved operating performance, with cash flow provided by continuing operations for the year ended December 31, 2015 of \$91.1 million, up 12% compared to 2014.

The cash generated from operations has helped us to significantly increase our cash position, return value to shareholders and reduce our total debt.

At December 31, 2015, cash and cash equivalents exceeded total debt by \$31.9 million, compared to a net debt balance of \$26.1 million at December 31, 2014. As a result of the reduction in debt, we reduced our interest expense by 36% in 2015, to \$2.3 million from \$3.6 million in 2014.

Our debt leverage remains low, at 0.4 times adjusted EBITDA as of December 31, 2015.

**Diversifying Customer Base**

Historically, 60% or more of our domestic net sales were derived from municipal and other government markets. Municipalities will continue to be important customers, and our leadership in municipal and government markets remains a strength of our company.

At the same time, our organic and acquisition growth initiatives generally will focus on expanding our industrial customer base.

Although near-term industrial demand has been soft, notably in relation to oil and gas markets, we continue to believe that industrial markets tend to offer better margin and growth opportunities over the longer term.

We have also continued to focus on new product development in 2015 and are encouraged that these efforts will provide additional opportunities to further diversify our customer base. Specific examples for industrial markets include investments in new excavator designs to better target utility markets and in internationally certified safety products to expand our global reach.



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## Results of Operations

The following table summarizes our Consolidated Statements of Operations and illustrates the key financial indicators used to assess our consolidated financial results:

(\$ in millions, except per share data)	For the Years Ended December 31,			Change	
	2015	2014	2013	2015 vs. 2014	2014 vs. 2013
Net sales	\$768.0	\$779.1	\$712.9	\$(11.1 )	\$66.2
Cost of sales	542.4	570.4	536.9	(28.0 )	33.5
Gross profit	225.6	208.7	176.0	16.9	32.7
Selling, engineering, general and administrative expenses	122.0	120.0	113.7	2.0	6.3
Restructuring	0.4	—	0.7	0.4	(0.7 )
Operating income	103.2	88.7	61.6	14.5	27.1
Interest expense	2.3	3.6	8.9	(1.3 )	(5.3 )
Debt settlement charges	—	—	8.7	—	(8.7 )
Other expense, net	1.0	1.7	0.1	(0.7 )	1.6
Income before income taxes	99.9	83.4	43.9	16.5	39.5
Income tax (expense) benefit	(34.1 )	(23.7 )	108.6	(10.4 )	(132.3 )
Income from continuing operations	65.8	59.7	152.5	6.1	(92.8 )
(Loss) gain from discontinued operations and disposal, net of tax	(2.3 )	4.0	7.5	(6.3 )	(3.5 )
Net income	\$63.5	\$63.7	\$160.0	\$(0.2 )	\$(96.3 )
Other data:					
Operating margin	13.4	% 11.4	% 8.6	% 2.0	% 2.8
Diluted earnings per share — Continuing operations	\$1.04	\$0.94	\$2.41	\$0.10	\$(1.47 )
Total orders	686.1	807.4	706.0	(121.3 )	101.4
Backlog	171.3	254.7	226.5	(83.4 )	28.2
Depreciation and amortization	12.3	11.5	11.0	0.8	0.5

Year ended December 31, 2015 vs. year ended December 31, 2014

## Net sales

Net sales decreased by \$11.1 million, or 1%, for the year ended December 31, 2015 compared to the prior year. Net sales in the Environmental Solutions Group decreased by \$2.5 million, with lower sales of vacuum trucks and sewer cleaners being partially offset by improved sales of street sweepers. In the Safety and Security Systems Group, net sales were down \$8.6 million, largely due to an \$11.4 million reduction in sales of industrial products associated with lower demand within oil and gas markets, as well as an unfavorable foreign currency impact of \$8.2 million, partially offset by a \$10.9 million improvement in sales into European public safety markets.

## Cost of sales

For the year ended December 31, 2015, cost of sales decreased by \$28.0 million, or 5%, compared to the prior year, largely driven by a decrease of \$18.0 million within the Environmental Solutions Group, principally associated with favorable product mix, as well as productivity and capacity improvements at our manufacturing facilities. The Safety and Security Systems Group also reported a \$10.0 million cost of sales reduction, primarily due to a favorable foreign currency impact of \$6.2 million, as well as favorable sales mix effects.

## Gross profit

For the year ended December 31, 2015, gross profit increased by \$16.9 million, or 8%, compared to the prior year. Gross margin for the year ended December 31, 2015 was 29.4%, up from 26.8% in the prior year. The improvement in gross margin was primarily the result of productivity and facilities utilization improvements and improved pricing

within the Environmental Solutions Group, as well as favorable product mix and lower costs in the Safety and Security Systems Group.

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Selling, engineering, general and administrative expenses

SEG&A expenses increased by \$2.0 million for the year ended December 31, 2015 compared to the prior year, largely due to increases of \$0.8 million within the Safety and Security Systems Group, associated with higher engineering expenses for new product development, and \$0.7 million within Corporate, primarily due to increased employee costs. The Environmental Solutions Group also reported a \$0.5 million increase, primarily due to higher employee compensation costs, partially offset by decreased product liability and workers' compensation expenses.

Operating income

Operating income for the year ended December 31, 2015 increased by \$14.5 million, or 16%, to \$103.2 million, reflecting an operating margin of 13.4% compared to 11.4% in the prior year. The increase was primarily attributable to improved operating leverage and favorable pricing within the Environmental Solutions Group, which contributed to a \$15.5 million improvement in gross profit, and improved performance in the Safety and Security Systems Group, resulting in a \$1.4 million increase in gross profit. These increases were partially offset by higher SEG&A expenses and \$0.4 million of restructuring expenses in the Safety and Security Systems Group associated with severance costs incurred in connection with the completion of a voluntary reduction-in-force at our U.K. coal-mining business.

Interest expense

Interest expense for the year ended December 31, 2015 decreased by \$1.3 million, or 36%, compared to the prior year, primarily due to significant reductions in debt levels. For further discussion, see Note 5 – Debt to the accompanying consolidated financial statements.

Other expense, net

Other expense, net totaled \$1.0 million for the year ended December 31, 2015, as compared to \$1.7 million in the prior year. The decrease was largely driven by a \$0.6 million gain on a foreign currency forward contract entered into in connection with the sale of the Fire Rescue Group, as discussed further in Note 14 – Discontinued Operations to the accompanying consolidated financial statements.

Income tax (expense) benefit

The Company recognized income tax expense of \$34.1 million in the year ended December 31, 2015, compared to \$23.7 million in the prior year. The Company's effective tax rate for the year ended December 31, 2015 was 34.1%, compared to 28.4% in 2014. The increase in tax expense in the current year was primarily due to higher pre-tax income levels and the absence of certain tax benefits in the prior year that did not recur, described further below. The Company's effective tax rate for the year ended December 31, 2015 was favorably impacted by a \$4.2 million net tax benefit associated with tax planning strategies, partially offset by a \$2.4 million adjustment of deferred tax assets and \$0.4 million of expense associated with a change in the enacted tax rate in the U.K.

The Company's effective tax rate for the year ended December 31, 2014 was favorably impacted by a \$1.0 million net reduction in unrecognized tax benefits, primarily related to the completion of an IRS audit, a \$3.5 million release of valuation allowance that was previously recorded against the Company's Spanish deferred tax assets and a \$0.4 million benefit attributable to a change in the enacted tax rate in Spain.

For further discussion, see Note 6 – Income Taxes to the accompanying consolidated financial statements.

Income from continuing operations

Income from continuing operations was \$65.8 million for the year ended December 31, 2015, compared with \$59.7 million in the prior year. The \$6.1 million increase was largely due to increased operating income and reductions in interest expense and other expense, net, as explained above, partially offset by an increase in income tax expense.

(Loss) gain from discontinued operations and disposal, net of tax

For the year ended December 31, 2015, the Company recorded a net loss from discontinued operations and disposal of \$2.3 million, which was primarily driven by tax expense associated with recording a net deferred tax liability of \$6.3 million associated with recognizing the outside basis differences of entities being sold in connection with the sale of Bronto. Partially offsetting this tax expense was \$1.2 million of net income generated by the Fire Rescue Group, which was discontinued in 2015. The Company also received \$4.0 million from the general escrow funds originally established in connection with the Company's 2012 sale of the former Federal Signal Technologies Group ("FSTech"),

and recorded this income as a component

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of (Loss) gain from discontinued operations and disposal, net of tax of \$1.5 million. There were no amounts remaining in escrow as of December 31, 2015.

For the year ended December 31, 2014, the Company recorded a net gain from discontinued operations and disposal of \$4.0 million, which included \$3.3 million of net income generated by the Fire Rescue Group, which was discontinued in 2015, as well as adjustments of estimated product liability obligations of previously discontinued businesses, resulting from updated actuarial valuations.

For further discussion of the loss from discontinued operations and disposals, see Note 14 – Discontinued Operations to the accompanying consolidated financial statements.

Year ended December 31, 2014 vs. year ended December 31, 2013

Net sales

Net sales increased by \$66.2 million, or 9%, for the year ended December 31, 2014 compared to the prior year, primarily driven by our Environmental Solutions Group, which reported a net sales improvement of \$62.6 million, or 13%, which primarily resulted from a \$41.1 million increase in sales volumes, improved pricing strategies and favorable product mix linked to higher sales to industrial customers. Vacuum truck sales increased by \$22.6 million, largely resulting from increased production throughput and productivity gains within our manufacturing facilities that have resulted in improved sales volumes of hydro-excavation products. Street sweeper sales were also \$21.5 million higher than the prior year, and were reflective of improved municipal demand. There was also improvement in the Safety and Security Systems Group, where net sales increased by \$3.6 million, or 2%.

Cost of sales

For the year ended December 31, 2014, cost of sales increased by \$33.5 million, or 6%, compared to the prior year, largely driven by an increase of \$33.8 million, or 9%, within the Environmental Solutions Group associated with higher unit volumes. These increases were partially offset by a \$0.3 million reduction within our Safety and Security Group.

Gross profit

For the year ended December 31, 2014, gross profit increased by \$32.7 million compared to the prior year. Gross margin for the year ended December 31, 2014 was 26.8%, up from 24.7% in the prior year. The improvement in gross margin was primarily the result of increased volumes that leveraged production capacity, favorable product mix associated with higher sales to industrial customers and productivity and facilities utilization improvements within our Environmental Solutions Group. Gross margin within our Safety and Security Systems Group improved by 110 basis points in comparison to the prior year, which included inefficiencies associated with an ERP implementation.

Selling, engineering, general and administrative expenses

SEG&A expenses increased by \$6.3 million for the year ended December 31, 2014 compared to the prior year, primarily due to a \$5.1 million increase within the Environmental Solutions Group, resulting from higher employee incentive and stock-compensation expense, product liability costs and consulting expenses. In addition, SEG&A expenses at Corporate were \$2.3 million higher than the prior year, largely due to increased employee incentive and stock-compensation expense. These increases were partially offset by lower expenses of \$1.1 million within the Safety and Security Systems Group, primarily due to lower pension expense and staffing costs.

Restructuring

There were no restructuring charges in 2014.

In 2013, the Company recorded restructuring charges of \$1.2 million and \$0.3 million related to severance costs in the Safety and Security Systems Group and Corporate, respectively. These charges were partially offset by the reversal of \$0.6 million of Corporate restructuring costs that were originally recognized in 2012, after it was determined that the costs were not required.

Operating income

Operating income for the year ended December 31, 2014 increased by \$27.1 million, or 44%, when compared to the prior year. The increases were primarily attributable to improved operating leverage and increased volumes within our Environmental Solutions Group, which contributed to a \$28.8 million improvement in gross profit, and improved

performance in our Safety and Security Systems Group, where gross profit increased by \$3.9 million. These increases were largely offset by increased

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SEG&A expenses within Corporate and the Environmental Solutions Group. Operating income for the year ended December 31, 2014 was also favorably impacted by the \$0.7 million reduction in restructuring charges and lower SEG&A expenses in our Safety and Security Systems Group.

Interest expense

Compared with the prior year, interest expense for the year ended December 31, 2014 decreased by \$5.3 million, or 60%, primarily due to significant reductions in debt levels. For the year ended December 31, 2014, interest expense further benefited from lower interest rates on borrowings that resulted from our March 2013 debt refinancing.

Debt settlement charges

There were no debt settlement charges in 2014.

In the first quarter of 2013, the Company recorded \$8.7 million of charges related to the termination of our prior debt facilities. The expenses included the write-off of deferred financing fees of \$4.5 million and a prepayment penalty of \$4.2 million.

Other expense, net

Other expense, net totaled \$1.7 million for the year ended December 31, 2014, as compared to \$0.1 million in the prior year. The increase was largely driven by higher realized losses from foreign currency transactions.

Income tax (expense) benefit

The Company recognized income tax expense of \$23.7 million for the year ended December 31, 2014, compared to an income tax benefit of \$108.6 million in the prior year. The Company's effective tax rate for the year ended December 31, 2014 was 28.4%, compared to (247.4)% in 2013.

In the second quarter of 2013, it was determined that \$102.4 million of valuation allowance previously recorded against U.S. deferred tax assets could be released. This evaluation was based on a qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies and general business risks, that resulted in a more likely than not conclusion of being able to realize a significant portion of our U.S. deferred tax assets.

Upon releasing the significant portion of our valuation allowance on U.S. deferred tax assets in the second quarter of 2013, a valuation allowance of \$10.4 million was maintained in accordance with the guidance provided in Accounting Standards Codification ("ASC") 740-270-25-4 and was released through the effective tax rate as domestic income was recognized throughout the course of the year ended December 31, 2013. An additional \$3.4 million reduction in deferred tax valuation allowances was recorded as a discrete item in the year ended December 31, 2013.

In the fourth quarter of 2013, the Company also executed a tax planning strategy that resulted in the release of \$6.7 million of valuation allowance that was previously recorded against the Company's foreign tax credits, which would have begun to expire in 2015.

As the Company no longer maintains a valuation allowance against most domestic tax assets, tax expense has been recognized on domestic earnings, as well as non-U.S. earnings, in the year ended December 31, 2014.

The Company's effective tax rate for the year ended December 31, 2014 was also favorably impacted by a \$1.0 million net reduction in unrecognized tax benefits, that primarily related to the completion of an IRS audit, a \$3.5 million release of valuation allowance that was previously recorded against the Company's Spanish deferred tax assets and a \$0.4 million benefit attributable to a change in the enacted tax rate in Spain.

Income from continuing operations

Income from continuing operations was \$59.7 million for the year ended December 31, 2014, compared with \$152.5 million in the prior year. The lower income is largely due to increased income tax expense, partially offset by improved operating income and reduced interest expense, as further explained above. Income from continuing operations for the year ended December 31, 2014, was also positively impacted by the absence of \$8.7 million of debt settlement charges incurred in connection with our prior year debt refinancing.

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## Gain from discontinued operations and disposal, net of tax

For the year ended December 31, 2014, the Company recorded a net gain from discontinued operations and disposal of \$4.0 million, which included \$3.3 million of net income generated by the Fire Rescue Group, which was discontinued in 2015, as well as adjustments of estimated product liability obligations of previously discontinued businesses, resulting from updated actuarial valuations.

For the year ended December 31, 2013, the Company recorded a net gain from discontinued operations and disposal of \$7.5 million, which included \$7.7 million of net income generated by the Fire Rescue Group. Partially offsetting this income was a charge related to special termination benefits provided to certain FSTech employees that were retained by the Company in order to assist with transitional operations through the end of the third quarter of 2013, as well as certain adjustments relating to assets of other previously discontinued operations.

## Orders &amp; Backlog

(\$ in millions)	2015	2014	2013		
Total orders	\$686.1	\$807.4	\$706.0		
Change in orders year-over-year	(15.0)	)%	14.4	%	2.3 %
Change in U.S. municipal and government orders year-over-year	(10.9)	)%	20.7	%	1.7 %
Change in U.S. industrial and commercial orders year-over-year	(30.2)	)%	13.7	%	8.2 %
Change in non-U.S. orders year-over-year	(3.0)	)%	4.8	%	(3.1) %
Backlog	\$171.3	\$254.7	\$226.5		
Change in backlog year-over-year	(32.7)	)%	12.5	%	(3.5) %

## Year ended December 31, 2015 vs. year ended December 31, 2014

For the year ended December 31, 2015, total orders of \$686.1 million decreased by \$121.3 million, or 15%, compared to the prior year, largely due to lower demand for vacuum trucks, street sweepers and sewer cleaners, which led to an \$106.4 million decrease in orders within our Environmental Solutions Group. Our Safety and Security Systems Group also reported decreased orders of \$14.9 million.

U.S. municipal and governmental orders decreased by 11%, primarily due to a decline in orders of street sweepers and sewer cleaners of \$26.3 million and \$12.9 million, respectively. Street sweeper and sewer cleaner orders from our municipal markets decreased largely due to fewer fleet orders as compared with the prior year.

U.S. industrial and commercial orders decreased by 30%, primarily as a result of lower orders within our Environmental Solutions Group, including decreased orders of \$66.1 million for vacuum trucks, which were adversely impacted, directly and indirectly, by softness in oil and gas markets and, to a lesser extent, other industrial markets.

Non-U.S. orders decreased by 3%, primarily due to lower demand for industrial products used in oil and gas markets and coal markets and unfavorable foreign currency effects within our Safety and Security Systems Group. This was partially offset by an increase in orders from European and international public safety markets linked to higher demand, as well as increased orders from Canada within our Environmental Solutions Group.

## Year ended December 31, 2014 vs. year ended December 31, 2013

For the year ended December 31, 2014, total orders of \$807.4 million increased by \$101.4 million, or 14%, compared to the prior year, largely due to higher demand for street sweepers, vacuum trucks and sewer cleaners which led to an \$85.9 million increase in orders within our Environmental Solutions Group. Our Safety and Security Systems Group also reported improved orders of \$15.5 million.

U.S. municipal and governmental orders increased by 21%, primarily due to higher street sweeper orders of \$41.5 million, which were positively impacted by solid municipal demand and an influx of fleet orders, as well as the effects of an improved pricing strategy. Further contributing to the increase in U.S. municipal and governmental orders was an \$11.2 million increase in sewer cleaner orders and a \$3.6 million improvement in orders of outdoor warning and other public notification systems.

U.S. industrial and commercial orders increased by 14%, primarily as a result of improved orders within our Environmental Solutions Group, including increased orders of \$19.8 million, \$6.3 million and \$4.3 million for vacuum trucks, waterblasters and used equipment, respectively.





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Non-U.S. orders increased by 5%, primarily due to higher integrated systems orders and increased demand in international public safety markets within our Safety and Security Systems Group.

**Backlog**

Backlog was \$171.3 million at December 31, 2015 as compared to \$254.7 million at December 31, 2014. The decrease was largely due to a lower backlog for vacuum trucks, street sweepers and sewer cleaners within our Environmental Solutions Group, resulting from reduced demand from oil and gas markets and the absence of certain large fleet orders received in the prior year. The reduction in orders also includes the effects of receiving fewer advance orders from customers associated with shorter lead times for our products following our recent capacity improvements.

**Environmental Solutions**

The following table summarizes the Environmental Solutions Group's operating results as of and for the years ended December 31, 2015, 2014 and 2013:

(\$ in millions)	For the Years Ended December 31,			Change		
	2015	2014	2013	2015 vs. 2014	2014 vs. 2013	
Net sales	\$534.1	\$536.6	\$474.0	\$(2.5 )	\$62.6	
Operating income	96.9	81.9	58.2	15.0	23.7	
Other data:						
Operating margin	18.1	% 15.3	% 12.3	% 2.8	% 3.0	%
Total orders	\$449.2	\$555.6	\$469.7	\$(106.4 )	\$85.9	
Backlog	133.4	218.3	199.3	(84.9 )	19.0	
Depreciation and amortization	7.3	6.8	6.1	0.5	0.7	

Year ended December 31, 2015 vs. year ended December 31, 2014

Total orders decreased by \$106.4 million, or 19%, for the year ended December 31, 2015. U.S. orders decreased by \$111.2 million, or 24%, largely due to reductions in orders for vacuum trucks, street sweepers, and sewer cleaners of \$66.1 million, \$22.7 million and \$13.8 million, respectively. Vacuum truck orders were adversely impacted by softness in oil and gas markets, while the decreases in street sweeper and sewer cleaner orders from our municipal markets was primarily due to fewer large fleet orders when compared with the prior year. Non-U.S. orders increased by \$4.8 million, or 6%, for the year ended December 31, 2015. Orders from Canada were up \$15.9 million, primarily driven by improved sewer cleaner orders. Partially offsetting the improvement in Canadian orders were decreases in orders from the Middle East, South America and Mexico of \$8.7 million, \$2.6 million, and \$2.2 million, respectively. The prior year included a large fleet order for street sweepers from the Middle East.

Net sales decreased by \$2.5 million for the year ended December 31, 2015. U.S. sales decreased by \$0.4 million, primarily due to decreases in sales of vacuum trucks and sewer cleaners of \$19.9 million and \$11.8 million, respectively, that was largely offset by a \$33.6 million increase in shipments of street sweepers. The improvement in street sweeper sales is reflective of strong municipal order intake in prior periods. The decline in the demand for sewer cleaners and vacuum trucks is reflective of softness in oil and gas markets, which has also contributed to lower demand for additional rental units in the vacuum truck market. Non-U.S. sales decreased by \$2.1 million, largely driven a \$9.2 million decline in street sweeper shipments to the Middle East, partially offset by increased sales of vacuum trucks and sewer cleaners into Canada. The prior year was inclusive of a significant street sweeper fleet order to the Middle East that did not repeat.

Cost of sales decreased by \$18.0 million for the year ended December 31, 2015. Favorable product mix effects of \$19.8 million were partly offset by a \$1.8 million increase associated with higher unit volumes. Gross margin for the year ended December 31, 2015 improved to 26.3% from 23.3% in the prior year, largely due to favorable pricing, coupled with productivity and capacity improvements at our manufacturing facilities.

SEG&A expenses increased by \$0.5 million for the year ended December 31, 2015, largely due to a \$1.9 million increase in employee compensation costs, partially offset by a \$1.1 million decrease in product liability and workers'

compensation expenses.

Operating income increased by \$15.0 million, or 18%, for the year ended December 31, 2015. The increase in operating income was the result of a \$15.5 million improvement in gross profit, offset by the \$0.5 million increase in SEG&A expenses.

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Backlog was \$133.4 million at December 31, 2015 compared to \$218.3 million at December 31, 2014. The decrease was largely due to a lower backlog for vacuum trucks, street sweepers and sewer cleaners, which declined by \$83.2 million in the aggregate, resulting from reduced demand from oil and gas markets and the absence of certain large fleet orders received in the prior year. The reduction in orders also includes the effects of receiving fewer advance orders from customers associated with shorter lead times for our products that were facilitated by our recent capacity improvements.

Year ended December 31, 2014 vs. year ended December 31, 2013

Total orders increased by \$85.9 million, or 18%, for the year ended December 31, 2014. U.S. orders increased \$86.5 million, or 23%, largely due to an increase in orders for street sweepers of \$37.4 million, vacuum trucks of \$15.9 million, sewer cleaners of \$15.0 million and waterblasters of \$6.3 million. Orders for street sweepers and sewer cleaners benefited from solid municipal demand and an influx of fleet orders, including significant orders from large municipalities. Improved vacuum truck orders are inclusive of hydro-excavation products with applications in industrial markets. Non-U.S. orders decreased by \$0.6 million for the year ended December 31, 2014. Compared with the prior year, orders for street sweepers and sewer cleaners in Canada were \$7.0 million lower, while orders for sewer cleaners in the Middle East were also down \$3.3 million. Partially offsetting these decreases were increased orders of \$8.8 million for street sweepers in the Middle East, which were largely driven by a large fleet order during the second quarter of 2014.

Net sales increased by \$62.6 million, or 13%, for the year ended December 31, 2014. U.S. sales increased \$43.1 million, primarily driven by increased shipments of vacuum trucks and street sweepers of \$25.5 million and \$10.4 million, respectively. Vacuum truck shipments exceeded prior-year levels, largely due to increased production throughput and productivity improvements within our manufacturing facilities which have facilitated increased sales of hydro-excavator products. Higher sales of street sweepers reflected improving municipal demand. Non-U.S. sales increased \$19.5 million, or 25%, primarily due to increased street sweeper sales to the Middle East and Canada, and increased sewer cleaner shipments to Mexico and Canada.

Cost of sales increased by \$33.8 million for the year ended December 31, 2014. The increase was primarily due to higher sales volumes, which resulted in a \$31.5 million increase in cost of sales, as well as increased costs associated with product mix relating to higher-content products within our industrial markets, partially offset by productivity improvements. Gross margin for the year ended December 31, 2014 improved to 23.3% from 20.3% in the prior year largely due to favorable mix associated with higher sales to industrial customers, including increased shipments of hydro-excavation products. Gross margin further benefited from favorable pricing, improved productivity and manufacturing facilities utilization improvements.

SEG&A expenses increased by \$5.1 million for the year ended December 31, 2014. The higher SEG&A expenses were largely the result of increased employee incentive and stock-based compensation expense, product liability costs and consulting expenses of \$1.9 million, \$1.6 million and \$1.1 million, respectively.

Operating income increased by \$23.7 million, or 41%, for the year ended December 31, 2014. The increase in operating income was a result of higher gross profit of \$28.8 million, primarily attributable to operating leverage and favorable product mix, offset by a \$5.1 million increase in SEG&A expenses.

Backlog was \$218.3 million at December 31, 2014, up 10% compared to \$199.3 million at December 31, 2013. Backlog for street sweepers increased by \$30.3 million, largely as a result of significant fleet orders, while backlog for sewer cleaners and vacuum trucks declined by \$12.1 million, primarily as a result of measures taken to increase production capacity to manage backlog and shorten lead times for sewer cleaners and vacuum trucks.

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## Safety and Security Systems

The following table summarizes the Safety and Security Systems Group's operating results as of and for the years ended December 31, 2015, 2014 and 2013:

(\$ in millions)	For the Years Ended December 31,			Change		
	2015	2014	2013	2015 vs. 2014	2014 vs. 2013	
Net sales	\$233.9	\$242.5	\$238.9	\$(8.6 )	\$3.6	
Operating income	32.3	32.1	26.1	0.2	6.0	
Other data:						
Operating margin	13.8	% 13.2	% 10.9	% 0.6	% 2.3	%
Total orders	\$236.9	\$251.8	\$236.3	\$(14.9 )	\$15.5	
Backlog	37.9	36.4	27.2	1.5	9.2	
Depreciation and amortization	4.8	4.5	4.2	0.3	0.3	

Year ended December 31, 2015 vs. year ended December 31, 2014

Total orders decreased by \$14.9 million, or 6%, for the year ended December 31, 2015. U.S. orders decreased by \$4.4 million, primarily due to a \$5.4 million decrease in orders for outdoor warning systems when compared to the prior year that included two large orders that did not repeat, and a \$6.8 million decrease in industrial orders attributable to lower demand in oil and gas markets and domestic coal markets. These decreases were partially offset by a \$7.8 million improvement in orders from public safety markets, largely driven by improved police orders. Non-U.S. orders decreased by \$10.5 million, or 10%, primarily due to an \$8.3 million unfavorable foreign currency effect. Excluding the unfavorable foreign currency effect, non-U.S. orders were adversely impacted by a \$6.5 million decline in industrial orders, primarily due to softness in the international oil and gas markets, a \$3.5 million reduction in orders for products sold into international coal markets and a \$2.8 million decrease in orders for outdoor warning systems. These reductions were offset by a \$10.6 million increase in orders from European and other international public safety markets associated with improved demand, as well as the effects of several large orders received during the year. Net sales decreased by \$8.6 million for the year ended December 31, 2015. U.S. sales decreased by \$3.4 million, largely due to a \$6.0 million decrease in sales of industrial products, attributable to lower demand in oil and gas markets and domestic coal markets, which was partially offset by a \$2.7 million improvement in sales into public safety markets. Non-U.S. sales decreased by \$5.2 million, principally due to an unfavorable foreign currency impact of \$8.2 million. Excluding unfavorable foreign currency effects, non-U.S. sales increased by \$3.0 million, largely due to a \$10.9 million improvement in sales into European public safety markets and a \$1.2 million increase in other international public safety markets. These increases were partially offset by a \$5.4 million reduction in sales of industrial products into international oil and gas and coal markets, and a \$3.7 million decrease in sales of outdoor warning systems.

Cost of sales decreased by \$10.0 million for the year ended December 31, 2015. The decrease largely resulted from a favorable foreign currency impact of \$6.2 million, coupled with favorable customer and product mix effects, as well as reductions in manufacturing, freight and product costs. Gross margin for the year ended December 31, 2015 improved to 36.3% from 34.5% in the prior year, largely as a result of reduced costs and a favorable change in the mix of products sold to customers.

SEG&A expenses increased by \$0.8 million for the year ended December 31, 2015, largely due to higher engineering expenses for new product development and increased employee costs.

Operating income increased by \$0.2 million for the year ended December 31, 2015, largely due to a \$1.4 million improvement in gross profit, offset by the \$0.8 million increase in SEG&A expenses and \$0.4 million of expense associated with restructuring activities, primarily associated with severance costs incurred in connection with a voluntary reduction-in-force that was completed at our U.K. coal-mining business.

Backlog was \$37.9 million at December 31, 2015 compared to \$36.4 million at December 31, 2014. The increase was primarily due to improved orders within the public safety market, largely driven by higher police orders, partially

offset by decreased industrial orders attributable to lower demand in oil and gas markets.

Year ended December 31, 2014 vs. year ended December 31, 2013

Total orders increased by \$15.5 million, or 7%, for the year ended December 31, 2014. U.S. orders were \$6.3 million higher than the prior year, and included increases of \$3.9 million within our public safety markets, largely driven by higher police orders coupled with market share gains. Orders of outdoor warning and other notification systems sold into the municipal

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markets increased by \$3.6 million. These increases were partially offset by a \$1.3 million decrease in orders of industrial products. Non-U.S. orders increased by \$9.2 million largely due to a \$6.7 million improvement in integrated systems orders, including sales into the international oil and gas markets, as well as \$6.0 million of increased orders within our international public safety markets, primarily attributable to an influx of large orders within our European markets. These increases were partially offset by a \$2.6 million decrease in orders into international coal markets. Net sales increased by \$3.6 million for the year ended December 31, 2014. U.S. sales were \$0.3 million higher than the prior year. Sales within our public safety markets increased by \$6.4 million, including a \$3.2 million improvement in sales to police customers that was inclusive of a significant project with a major municipality. Largely offsetting these increases was a reduction of \$4.5 million in sales of outdoor warning systems, which were impacted by the completion of significant orders in the municipal and military markets in the prior year, as well as a \$1.5 million decrease in sales of industrial products due to slow demand. Non-U.S. sales increased by \$3.3 million, primarily due to improvements within the European public safety markets of \$2.9 million, driven by several significant deliveries, as well as a \$2.8 million increase in integrated system sales and a \$2.1 million improvement in sales of outdoor warning systems including several large sales into the Middle East. These increases were offset by \$2.4 million in lower public safety exports to Mexico, South America and other international markets. Sales into international coal markets declined by \$1.5 million as compared to the prior year, reflecting unfavorable market conditions.

Despite increased sales of \$3.6 million, cost of sales decreased by \$0.3 million for the year ended December 31, 2014. The reduction resulted from lower manufacturing costs, improved productivity, and favorable fixed-cost absorption tied to higher volumes. Also contributing to the decrease in cost of sales was the absence of expenses incurred in the prior year in connection with an ERP system implementation, as well as lower freight costs. Gross margin for the year ended December 31, 2014 improved to 34.5% from 33.4% in the prior year as a result of these factors, coupled with moderate pricing gains and favorable product mix realized in 2014.

SEG&A expenses decreased by \$1.1 million for the year ended December 31, 2014, primarily due to a \$1.3 million reduction in pension expense, lower sales commissions related to sales mix, decreased staffing costs attributable to prior restructuring activities and reductions in discretionary spending. Partially offsetting the decrease were increased employee incentive and stock-based compensation expenses.

Operating income increased by \$6.0 million, or 23%, for the year ended December 31, 2014, largely due to a \$3.9 million improvement in gross profit and the \$1.1 million decrease in SEG&A expenses. In addition, there were \$1.0 million of restructuring charges incurred in the prior year.

Backlog was \$36.4 million at December 31, 2014 compared to \$27.2 million at December 31, 2013. The increase of \$9.2 million, or 34%, is primarily due to orders received in the fourth quarter of 2014, which were \$5.3 million higher than in the fourth quarter of 2013, as well as the timing of future deliveries based on customer requirements.

#### Corporate Expense

Corporate operating expenses were \$26.0 million, \$25.3 million and \$22.7 million for the years ended December 31, 2015, 2014 and 2013, respectively.

For the year ended December 31, 2015, corporate operating expenses increased by \$0.7 million, primarily due to higher employee costs.

For the year ended December 31, 2014, corporate operating expenses increased by \$2.6 million, or 11%. The increase primarily related to an aggregate increase of \$3.3 million in incentive and stock-based compensation expense, which was due in part to improvements in the Company's performance. Also contributing to the increase was an unfavorable impact of \$0.3 million from corporate restructuring activities. These increases were partially offset by a \$1.3 million reduction in pension expense and lower professional services costs.

The Company's hearing loss litigation has historically been managed by the Company's legal staff resident at the corporate office and not by management at any reporting segment. In accordance with ASC Topic 280, Segment Reporting, which provides that segment reporting should follow the management of the item and that certain expenses may be corporate expenses, these legal expenses (which are not part of the normal operating activities of any of our operating segments), are reported and managed as corporate expenses.





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## Financial Condition, Liquidity and Capital Resources

The Company used its cash flow from operations to fund growth and to make capital investments that sustain its operations, reduce costs, or both. Beyond these uses, remaining cash is used to pay down debt, repurchase shares, fund dividend payments and make pension contributions. The Company may also choose to invest in the acquisition of businesses. In the absence of significant unanticipated cash demands, we believe that the Company's existing cash balances, cash flow from operations and borrowings available under the 2016 Credit Agreement will provide funds sufficient for these purposes.

The Company's cash and cash equivalents totaled \$76.0 million, \$24.1 million and \$13.6 million as of December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, \$12.5 million of cash and cash equivalents was held by foreign subsidiaries. Cash and cash equivalents held by subsidiaries outside the U.S. typically are held in the currency of the country in which it is located. This cash is used to fund the operating activities of our foreign subsidiaries and for further investment in foreign operations. Generally, we consider such cash to be permanently reinvested in our foreign operations and our current plans do not demonstrate a need to repatriate such cash to fund U.S. operations. However, in the event that these funds were needed to fund U.S. operations or to satisfy U.S. obligations, they generally could be repatriated. The repatriation of these funds may then cause us to incur additional U.S. income tax expense, which would be dependent on income tax laws and other circumstances at the time any such amounts were repatriated.

As discussed further in Note 14 – Discontinued Operations to the accompanying consolidated financial statements, the Company recorded a net deferred tax liability of \$6.3 million at December 31, 2015 associated with recognizing the outside basis differences of entities being sold in connection with the sale of Bronto. The deferred tax liability recorded at December 31, 2015 includes a liability for U.S. income tax effects associated with the repatriation of the related sales proceeds. The initial sales proceeds of €76 million (approximately \$83 million) were received on January 29, 2016, with the remaining purchase price expected to be paid, in connection with the payment of the working capital and net debt adjustments, by the end of the second quarter of 2016.

Net cash provided by continuing operating activities totaled \$91.1 million, \$81.1 million and \$64.8 million in 2015, 2014 and 2013, respectively. The increase in cash generated by continuing operating activities in 2015 compared to 2014 was largely the result of higher earnings and a \$1.2 million reduction in pension contributions, offset by increases in year-end primary working capital (defined as accounts receivable and inventories, net, less accounts payable and customer deposits) and tax payments of \$4.0 million and \$2.4 million, respectively. The increase in cash generated by continuing operating activities in 2014 compared to 2013 was largely the result of higher earnings, offset by increases in year-end primary working capital and tax payments of \$7.7 million and \$5.9 million, respectively.

Net cash used in continuing investing activities totaled \$11.5 million, \$5.8 million and \$10.5 million in 2015, 2014 and 2013, respectively. In each of the years presented, cash was used to fund the purchase of properties and equipment, with \$9.6 million, \$13.7 million and \$11.6 million of capital expenditures in 2015, 2014 and 2013, respectively. In 2015, the Company provided a customer with a loan of \$6.0 million. The loan is secured by real estate of the customer, has a one-year term and bears interest at a rate of 7% per annum, increasing to 14% per annum if the loan is not repaid by an agreed-upon date. During 2015 and 2014, the Company also received \$4.0 million and \$7.4 million, respectively, from the escrow associated with the FSTech divestiture. Proceeds from the sale of properties and equipment amounted to \$0.1 million, \$0.5 million and \$0.1 million in 2015, 2014 and 2013, respectively.

Net cash used for continuing financing activities totaled \$33.0 million, \$53.7 million and \$65.6 million in 2015, 2014 and 2013, respectively. In 2015, the Company funded cash dividends of \$15.6 million, repurchased \$10.6 million of treasury stock, and redeemed \$3.2 million of stock in order to remit funds to tax authorities to satisfy employees' minimum tax withholdings following the vesting of stock-based compensation. The Company also paid \$5.8 million in scheduled term loan repayments. Offsetting these financing cash outflows were \$1.0 million of proceeds from stock option exercises and a \$1.6 million excess tax benefit, representing the difference between stock-based compensation expense deductible for income tax and recognized for financial reporting purposes. In 2014, the Company used cash to pay down a net \$20.0 million on its revolving credit facility and \$21.6 million on its term loan, including a voluntary

debt prepayment of \$15.0 million that was made during the fourth quarter. The Company also repurchased \$10.3 million of treasury stock and funded cash dividends of \$5.6 million. These financing cash outflows were offset by \$2.6 million of proceeds from stock option exercises and a \$2.2 million excess tax benefit. In 2013, the Company used \$61.4 million to pay down debt, and \$6.1 million to pay an early termination penalty and debt issuance costs in connection with its March 2013 debt refinancing. The Company also received \$2.6 million from stock compensation activity in 2013.

The Company uses the ratio of total debt to adjusted EBITDA as one measure of its long-term financial stability. The ratio of debt to adjusted EBITDA is a non-GAAP measure that represents total debt divided by the trailing 12-month total of income from continuing operations before interest expense, restructuring charges, other expense, income tax benefit or expense, and depreciation and amortization expense. The Company uses the ratio to calibrate the magnitude of its debt and its debt capacity

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against adjusted EBITDA, which is used as an operating performance measure. We believe that investors use a version of this ratio in a similar manner. In addition, financial institutions (including the Company's lenders) use the ratio in connection with debt agreements to set pricing and covenant limitations. For these reasons, the Company believes that the ratio is a meaningful metric to investors in evaluating the Company's long-term financial performance and stability. Other companies may use different methods to calculate total debt to EBITDA. The following table summarizes the Company's ratio of total debt to adjusted EBITDA and reconciles income from continuing operations to adjusted EBITDA as of and for each of the three years in the period ended December 31, 2015:

(\$ in millions)	Trailing Twelve Months Ending December 31,		
	2015	2014	2013
Total debt	\$44.1	\$50.2	\$92.1
Income from continuing operations	\$65.8	\$59.7	\$152.5
Add:			
Interest expense	2.3	3.6	8.9
Restructuring	0.4	—	0.7
Debt settlement charges	—	—	8.7
Other expense, net	1.0	1.7	0.1
Income tax expense (benefit)	34.1	23.7	(108.6)
Depreciation and amortization	12.3	11.5	11.0
Adjusted EBITDA	\$115.9	\$100.2	\$73.3
Total debt to adjusted EBITDA ratio	0.4	0.5	1.3

On January 27, 2016, the Company entered into the 2016 Credit Agreement, by and among the Company and certain of its foreign subsidiaries (collectively, the "Borrowers"), Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, JPMorgan Chase Bank, N.A. as syndication agent, KeyBank National Association, as documentation agent, Wells Fargo Securities, LLC and J.P. Morgan Securities LLC, as joint lead arrangers and joint bookrunners, and the other lenders and parties signatory thereto.

The 2016 Credit Agreement is a \$325.0 million revolving credit facility, maturing on January 27, 2021, that provides for borrowings in the form of loans or letters of credit up to the aggregate availability under the facility, with a sub-limit of \$50.0 million for letters of credit. The 2016 Credit Agreement allows for the Borrowers to borrow in denominations of U.S. Dollars, Canadian Dollars (up to a maximum of C\$85.0 million) or euros (up to a maximum of €20.0 million). In addition, the Company may cause the commitments to increase by up to an additional \$75.0 million, subject to the approval of the applicable lenders providing such additional financing. Borrowings under the 2016 Credit Agreement may be used for working capital and general corporate purposes, including permitted acquisitions. The Company's domestic subsidiaries provide guarantees for all obligations of the Borrowers under the 2016 Credit Agreement, which is secured by a first priority security interest in all now or hereafter acquired domestic property and assets and the stock or other equity interests in each of the domestic subsidiaries and 65% of the outstanding voting capital stock of certain first-tier foreign subsidiaries, subject to certain exclusions.

Borrowings under the 2016 Credit Agreement bear interest, at the Company's option, at a base rate or a LIBOR rate, plus, in each case, an applicable margin. The applicable margin ranges from 0.00% to 1.25% for base rate borrowings and 1.00% to 2.25% for LIBOR borrowings. The Company must also pay a commitment fee to the lenders ranging between 0.15% to 0.30% per annum on the unused portion of the \$325.0 million revolving credit facility along with other standard fees. Letter of credit fees are payable on outstanding letters of credit in an amount equal to the applicable LIBOR margin plus other customary fees.

The Company is subject to certain leverage ratio and interest coverage ratio financial covenants under the 2016 Credit Agreement that are to be measured at each fiscal quarter-end. The 2016 Credit Agreement also includes a "covenant

holiday” period, which allows for the temporary increase of the minimum leverage ratio following the completion of a permitted acquisition, or a series of permitted acquisitions, when the total consideration exceeds a specified threshold. In addition, the 2016 Credit Agreement includes customary negative covenants, subject to certain exceptions, restricting or limiting the Company’s and its subsidiaries’ ability to, among other things: (i) make non-ordinary course dispositions of assets, (ii) make certain fundamental business changes, such as merge, consolidate or enter into any similar combination, (iii) make restricted payments, including dividends and stock repurchases, (iv) incur indebtedness, (v) make certain loans and investments, (vi)

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create liens, (vii) transact with affiliates, (viii) enter into sale/leaseback transactions, (ix) make negative pledges and (x) modify subordinated debt documents.

Under the 2016 Credit Agreement, restricted payments, including dividends and stock repurchases, shall be permitted if (i) the Company's leverage ratio is less than or equal to 2.50, (ii) the Company is in compliance with all other financial covenants and (iii) there are no existing defaults under the 2016 Credit Agreement. If its leverage ratio is more than 2.50, the Company is still permitted to fund (i) up to \$30.0 million of dividend payments, (ii) stock repurchases sufficient to offset dilution created by the issuance of equity as compensation to its officer, directors, employees and consultants and (iii) an incremental \$30.0 million of other cash payments.

The 2016 Credit Agreement contains customary events of default. If an event of default occurs and is continuing, the Borrowers may be required immediately to repay all amounts outstanding under the 2016 Credit Agreement and the commitments from the lenders may be terminated.

The 2016 Credit Agreement amends and restates the Company's March 13, 2013 Credit Agreement (the "2013 Credit Agreement") by and among the Company, as borrower, the lenders referred to therein, as lenders, Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, General Electric Capital Corporation, as syndication agent, and Wells Fargo Securities, LLC and GE Capital Markets, Inc., as joint lead arrangers and joint book managers. The 2013 Credit Agreement provided the Company with a \$225.0 million senior secured credit facility comprised of a five-year fully funded term loan of \$75.0 million and a five-year \$150.0 million revolving credit facility under which borrowings may be made from time to time during the five-year term.

The 2013 Credit Agreement was a five-year senior secured credit facility secured by a first priority security interest in all now or hereafter acquired domestic property and assets and the stock or other equity interests in each of the domestic subsidiaries and certain of the first-tier foreign subsidiaries, subject to certain exclusions. Under the terms of the 2013 Credit Agreement, the Company was required to make quarterly installment payments against the \$75.0 million term loan, with any remaining balance due on the maturity date of March 13, 2018. As a result of executing the 2016 Credit Agreement subsequent to December 31, 2015, but prior to the issuance of the financial statements, the \$6.9 million current portion of term loan debt outstanding as of December 31, 2015 has been reflected as a component of long-term borrowings and capital lease obligations on the Consolidated Balance Sheet. Under the 2013 Credit Agreement, the Company was allowed to prepay the term loan in whole or in part prior to maturity without premium or penalty. In the fourth quarter of 2014, the Company made a voluntary term loan prepayment of \$15.0 million. In the first quarter of 2016, the Company repaid the remaining \$43.4 million of principal outstanding under the 2013 Credit Agreement.

The 2013 Credit Agreement provided for loans and letters of credit in an amount up to an aggregate availability under the revolving credit facility of \$150.0 million, with a sub-limit of \$50.0 million for letters of credit. Borrowings under the 2013 Credit Agreement bore interest, at the Company's option, at a base rate or a LIBOR rate, plus, in each case, an applicable margin. The applicable margin ranged from 1.00% to 2.00% for base rate borrowings and 2.00% to 3.00% for LIBOR borrowings. The Company was also required to pay a commitment fee to the lenders equal to a range of 0.25% to 0.45% per annum on the unused portion of the \$150.0 million revolving credit facility along with other standard fees. Letter of credit fees were also payable on outstanding letters of credit in an amount equal to the applicable LIBOR margin plus other customary fees. The Company was allowed to prepay in whole or in part advances under the revolving credit facility portion without penalty or premium other than customary "breakage" costs with respect to LIBOR loans.

The 2013 Credit Agreement required the Company to comply with financial covenants related to the maintenance of a minimum fixed charge coverage ratio and maximum leverage ratio. The financial covenants were measured at each fiscal quarter-end. Restricted payments, including dividends, were permitted only if the pro-forma leverage ratio after giving effect to such payment is less than 3.25x, pro-forma compliance after giving effect to such payment was maintained for all other financial covenants and there were no existing defaults under the 2013 Credit Agreement. The Company was in compliance with all of its debt covenants as of, and throughout the year ended, December 31, 2015.

In the first quarter of 2013, upon execution of the 2013 Credit Agreement, the Company recorded \$8.7 million of costs related to the termination of its prior debt agreements. The costs included a \$4.2 million early termination penalty payment and a \$4.5 million write-off of the remaining unamortized deferred financing costs related to the prior debt agreements.

The Company incurred \$1.9 million of debt issuance costs associated with the execution of the 2013 Credit Agreement. Financing costs incurred in connection with the 2013 Credit Agreement were deferred and, prior to the execution of the 2016 Credit Agreement, were being amortized over the five-year term. The Company does not expect to write off a material amount of unamortized deferred financing fees associated with the 2013 Credit Agreement in connection with executing the 2016 Credit Agreement in the first quarter of 2016. The Company estimates that approximately \$1 million of debt issuance costs were incurred in connection with the execution of the 2016 Credit Agreement.

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As of December 31, 2015, there was no cash drawn and \$19.2 million of undrawn letters of credit under the \$150.0 million revolving credit facility portion of the 2013 Credit Agreement, with \$130.8 million of net availability for borrowings. As of December 31, 2015, no amounts were drawn against the Company's non-U.S. lines of credit which provide for borrowings up to \$10.0 million.

For the years ended December 31, 2014 and December 31, 2013, gross borrowings under the Company's domestic revolving credit facility of the 2013 Credit Agreement were \$6.5 million and \$123.7 million, respectively. For the years ended December 31, 2014 and December 31, 2013, gross payments under the Company's domestic revolving credit facility of the 2013 Credit Agreement were \$26.5 million and \$106.2 million, respectively. There were no borrowings or repayments under the Company's domestic revolving credit facility of the 2013 Credit Agreement during 2015.

Aggregate maturities of total borrowings, giving effect to the 2016 Credit Agreement, amount to approximately \$0.4 million in 2016, \$0.3 million in 2017, none in 2018, none in 2019 and \$43.4 million in 2020 and thereafter. The weighted average interest rate on long-term borrowings was 2.4% at December 31, 2015.

The Company paid interest of \$1.9 million in 2015, \$3.0 million in 2014 and \$9.4 million in 2013.

The Company paid income taxes of \$9.6 million in 2015, \$7.2 million in 2014 and \$1.3 million in 2013.

Cash dividends of \$15.6 million and \$5.6 million were declared and paid to stockholders in 2015 and 2014. The Company did not declare any dividends in 2013 or 2012, and accordingly, no dividends were paid in 2013.

The Company anticipates that capital expenditures for 2016 will be in the range of \$10 million to \$15 million. The Company believes that its financial resources and major sources of liquidity, including cash flow from operations and borrowing capacity, will be adequate to meet its operating needs, capital needs and financial commitments.

Contractual Obligations and Off-Balance Sheet Arrangements

The following table summarizes the Company's contractual obligations and payments due by period as of December 31, 2015:

(in millions)	Payments Due by Period				
	Total	Less than 1 Year	2-3 Years	4-5 Years	More than 5 Years
Long-term debt <sup>(a)</sup>	\$43.4	\$—	\$—	\$—	\$43.4
Interest payments on long-term debt <sup>(b)</sup>	5.3	1.1	2.1	2.1	—
Operating lease obligations	43.3	7.6	13.0	10.4	12.3
Capital lease obligations	0.7	0.4	0.3	—	—
Purchase obligations <sup>(c)</sup>	55.0	51.5	3.5	—	—
Pension contributions <sup>(d)</sup>	6.3	6.3	—	—	—
Total contractual obligations <sup>(e)</sup>	\$154.0	\$66.9	\$18.9	\$12.5	\$55.7

<sup>(a)</sup> Long-term debt is reflective of the effects of the 2016 Credit Agreement, which was executed on January 27, 2016.

<sup>(b)</sup> For additional information, refer to Note 5 – Debt to the accompanying consolidated financial statements.

Amounts represent estimated contractual interest payments on outstanding long-term debt and are reflective of the <sup>(b)</sup> effects the 2016 Credit Agreement. For further discussion, refer to Note 5 – Debt to the accompanying consolidated financial statements.

<sup>(c)</sup> Purchase obligations primarily relate to commercial chassis and other contracts in the ordinary course of business.

The Company expects to contribute up to \$4.8 million to the U.S. benefit plans and up to \$1.5 million to the non-U.S. benefit plans in 2015, which represents the minimum required contribution. Future contributions to the plans will be based on such factors as (i) annual service cost, (ii) the financial return on plan assets, (iii) interest rate movements that affect discount rates applied to plan liabilities and (iv) the value of benefit payments made. Due to the high degree of uncertainty regarding the potential future cash outflows associated with these plans, the Company is unable to provide a reasonably reliable estimate of the amounts and periods in which any additional liabilities might be paid.

<sup>(e)</sup>

As of December 31, 2015, the Company has a liability of approximately \$2.2 million for unrecognized tax benefits (refer to Note 6 – Income Taxes to the accompanying consolidated financial statements). Due to the uncertainties related to these tax matters, the Company generally cannot make a reasonably reliable estimate of the period of cash settlement for this liability. As such, the potential future cash outflows are not included in the table above. We do not expect any significant change to our unrecognized tax benefits as a result of potential expiration of statute of limitations and settlements with tax authorities.



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The following table summarizes the Company's off-balance sheet arrangements and the notional amount by expiration period as of December 31, 2015:

(in millions)	Notional Amount by Expiration Period		
	Total	Less than 1 Year	2-3 Years
Financial standby letters of credit <sup>(a)</sup>	\$ 18.1	\$ 18.1	\$—
Performance standby letters of credit <sup>(a)</sup>	1.1	1.1	—
Performance and bid bonds <sup>(b)</sup>	3.0	2.9	0.1
Repurchase obligations <sup>(c)</sup>	11.7	11.7	—
Total off-balance sheet arrangements	\$33.9	\$33.8	\$0.1

Financial standby letters of credit largely relate to casualty insurance policies for the Company's workers' compensation, automobile, general liability and product liability policies. Performance standby letters of credit primarily represent guarantees of performance of certain subsidiaries that engage in transactions with foreign customers.

(a) Performance and bid bonds primarily relate to guarantees of performance of certain subsidiaries that engage in transactions with domestic and foreign customers.

For certain independent Environmental Solutions Group dealers that purchase products financed by a third-party lender, the Company may be obligated, for a limited period, to repurchase those products from the lender, in the event of a default by the applicable dealer and ultimate repossession of the underlying products by the lender.

(c) Subsequent to December 31, 2015, the Company and the lender executed an amendment to the agreement which removed the Company's repurchase obligation effective January 1, 2016. For further discussion, see Note 8 – Commitments and Contingencies to the accompanying consolidated financial statements.

#### Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) disclosure of contingent assets and liabilities at the date of the consolidated financial statements and (iii) the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The Company considers the following policies to be the most critical in understanding the judgments that are involved in the preparation of the Company's consolidated financial statements and the uncertainties that could impact the Company's financial condition, results of operations or cash flow.

#### Revenue Recognition

Net sales consist primarily of revenue from the sale of equipment, environmental vehicles, parts, service and maintenance contracts.

The Company recognizes revenue for products when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the sales price is fixed or determinable and (iv) collection is reasonably assured. A product is considered delivered to the customer once it has been shipped and title and risk of loss have been transferred. For most of the Company's product sales, these criteria are met at the time the product is shipped; however, occasionally title passes later or earlier than shipment due to customer contracts or letter of credit terms. If, at the outset of an arrangement, the Company determines the arrangement fee is not, or is presumed not to be, fixed or determinable, revenue is deferred and subsequently recognized as amounts become due and payable and all other criteria for revenue recognition have been met.

The Company enters into sales arrangements that may provide for multiple deliverables to a customer. These arrangements may include software and non-software components that function together to deliver the products' essential functionality. The Company identifies all goods and/or services that are to be delivered separately under the sales arrangement and allocates revenue to each deliverable based on relative fair values. Fair values are generally established using reliable third-party objective evidence, or management's best estimate of selling price, including prices charged when sold separately by the Company. In general, revenues are separated between hardware,

integration and installation services. The allocated revenue for each deliverable is then recognized using appropriate revenue recognition methods.

#### Workers' Compensation and Product Liability Reserves

Due to the nature of the Company's manufacturing and products, the Company is subject to workers' compensation and product liability claims in the ordinary course of business. The Company is self-funded for a portion of these claims with various retention and excess coverage thresholds. After a claim is filed, an initial liability is estimated, if any is expected, to resolve the claim. This liability is periodically updated as more claim facts become known. The establishment and update of liabilities for unpaid claims, including claims incurred but not reported, is based on the assessment by the Company's claim administrator of each claim and an independent actuarial valuation of the nature and severity of total claims, as well as management's estimate. The Company utilizes a third-party claims administrator to pay claims, track and evaluate actual claims experience and ensure

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consistency in the data used in the actuarial valuation. The amount and timing of cash payments relating to these claims are considered to be reliably determinable given the nature of the claims and historical claim volumes to support the actuarial assumptions and judgments used to derive the expected loss payment patterns. As such, the reserves recorded are discounted using a risk-free rate that matches the average duration of the claims. Management believes that the reserve established at December 31, 2015 appropriately reflects the Company's risk exposure. The Company has not established a reserve for potential losses resulting from firefighter hearing loss litigation (see Note 9 – Legal Proceedings to the accompanying consolidated financial statements). If the Company is not successful in its defense after exhausting all appellate options, it will record a charge for such claims, to the extent they exceed insurance recoveries, at the appropriate time.

#### Goodwill

Goodwill represents the excess of the cost of an acquired business over the amounts assigned to its net assets. Goodwill is not amortized but is tested for impairment at a reporting unit level on an annual basis or when an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company performed its annual goodwill impairment test as of October 31, 2015.

In 2014 and 2013, the Company applied the qualitative assessment, outlined in ASC 350, Intangibles — Goodwill and Other, to its reporting units and concluded that it was not “more likely than not” that the fair values of these reporting units were less than their carrying values. As a result, the Company was not required to perform the two-step impairment test described below for these reporting units in 2014 or 2013.

The Company applies the two-step quantitative test outlined in ASC 350 to each of its reporting units at least once every three years. As such, in 2015, a full valuation was performed for the Company's reporting units under the two-step test. The first step in the two-step approach is used to identify potential impairment, by comparing the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is unnecessary. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step compares the implied fair value of reporting unit goodwill with the carrying amount of that goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. The Company generally determines the fair value of its reporting units using two valuation methods: the “Income Approach — Discounted Cash Flow Analysis” method, and the “Market Approach — Guideline Public Company Method.”

Under the “Income Approach — Discounted Cash Flow Analysis” method, the key assumptions consider projected sales, cost of sales and operating expenses. These assumptions were determined by management utilizing our internal operating plan, including growth rates for revenues and operating expenses and margin assumptions. An additional key assumption under this approach is the discount rate, which is determined by reviewing current risk-free rates of capital and current market interest rates and by evaluating the risk premium relevant to the business segment. If our assumptions relative to growth rates were to change, our fair value calculation may change, which could result in impairment.

Under the “Market Approach — Guideline Public Company Method,” the Company identified several publicly traded companies, including Federal Signal, which we believe have sufficiently relevant similarities to our businesses. For these companies, the Company used market values to calculate the mean ratio of invested capital to revenues and invested capital to EBITDA. Similar to the income approach discussed above, sales, cost of sales, operating expenses and their respective growth rates are key assumptions utilized. The market prices of the Company's common stock and other guideline companies are additional key inputs. If these market prices increase, the estimated market value would increase. Conversely, if market prices decrease, the estimated market value would decrease.

The results of these two methods are weighted based upon management's evaluation of the relevance of the two approaches. Management used a combination of the income and market approaches to determine the fair value of the reporting units in 2015.

Although the Company believes its estimates of fair value are reasonable, actual financial results could differ from estimated financial results due to the inherent uncertainty involved in making such estimates. Changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting units, the amount of any goodwill impairment charge, or both. Future declines in the overall market value of the Company may also result in a conclusion that the fair value of one or more reporting units has declined below its carrying value.

One measure of the sensitivity of assumptions used in the impairment analysis is the amount by which each reporting unit “passed” (fair value exceeds the carrying value) the first-step of the two-step goodwill impairment test. The fair value of the reporting units that were tested for impairment under the two-step approach in the 2015 analysis significantly exceeded their

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carrying values. Relatively small changes in the Company's key assumptions would not have resulted in any of the reporting units failing the first step of the two-step test.

The Company had no goodwill impairments for its continuing operations in 2015, 2014 or 2013. Adverse changes to the Company's business environment and future cash flow could cause us to record impairment charges in future periods, which could be material. See Note 4 – Goodwill to the accompanying consolidated financial statements for a summary of the Company's goodwill by segment.

**Pensions**

The Company sponsors domestic and foreign defined benefit pension plans. Key assumptions used in the accounting for these employee benefit plans include the discount rate, expected long-term rate of return on plan assets, rate of increase in employee compensation levels and estimates of future mortality of plan participants. A change in any of these assumptions would have an effect on net periodic pension expense.

The following table summarizes the impact that a 25 basis point change in the discount rate on the Company's projected benefit obligation and net periodic pension expense:

(in millions)	Assumption Change:	
	25 Basis Point Increase	25 Basis Point Decrease
Projected benefit obligation	\$(7.5)	) \$ 7.9
Net periodic pension expense	(0.4)	) 0.4

The weighted-average discount rate used to measure pension liabilities and costs is selected using a hypothetical portfolio of high quality bonds that would provide the necessary cash flow to match the projected benefit payments of the plans. The discount rate represents the rate at which our benefit obligations could effectively be settled as of the year-end measurement date. The weighted-average discount rate used to measure pension liabilities increased from 2014 to 2015. For further discussion, see Note 7 – Pensions to the accompanying consolidated financial statements. The Company's net periodic pension expense is also sensitive to changes in the expected long-term rate of return on plan assets. The expected long-term rate of return on plan assets is based on historical and expected returns for the asset classes in which the plans are invested. The expected asset return assumption is based upon a long-term view; therefore, we do not expect to see significant changes from year to year based on positive or negative actual performance in a single year. A 25 basis point decrease or increase in the expected long-term rate of return on plan assets would have increased or decreased the net periodic pension expense recognized in 2015 by \$0.5 million. A decrease or increase of 25 basis points in the rate of increase in employee compensation levels would have an insignificant impact on the net periodic pension expense recognized in 2015.

In October 2014, the Society of Actuaries published new mortality tables and scales that project people will generally live longer than previously anticipated. The Company's projected benefit obligations as of December 31, 2015 and 2014 were measured after taking the updated tables into consideration. The estimated impact of adopting these new tables in 2014 was an increase of approximately 4% in the projected benefit obligation of the Company's U.S. defined benefit plan.

**Income Taxes**

Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying values of existing assets and liabilities and their respective tax bases.

Deferred tax assets are also recorded with respect to net operating losses and other tax attribute carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates in effect for the years in which temporary differences are expected to be recovered or settled. Valuation allowances are established when it is more likely than not that deferred tax assets will not be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the income of the period that includes the enactment date.

The guidance on accounting for income taxes provides important factors in determining whether a deferred tax asset will be realized, including whether there has been sufficient taxable income in recent years and whether sufficient income can reasonably be expected in future years in order to utilize the deferred tax asset. A high degree of judgment is required to determine if, and the extent that, valuation allowances should be recorded against deferred tax assets. A

valuation allowance is required to be established or maintained when, based on currently available information and other factors, it is more likely than not that all or a portion of a deferred tax asset will not be realized.

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We continually evaluate the need to maintain a valuation allowance for deferred tax assets based on our assessment of whether it is more likely than not that deferred tax benefits will be realized through the generation of future taxable income. Appropriate consideration is given to all available evidence, both positive and negative, in assessing the need for a valuation allowance.

We continue to maintain a valuation allowance on certain state deferred tax assets that we believe, on a more likely than not basis, will not be realized. At December 31, 2015, the valuation allowance recorded against state net operating loss carryforwards totaled \$5.9 million.

We believe that our approach to the associated estimates and judgments applied to our tax positions as described herein is reasonable; however, actual results could differ and we may be exposed to increases or decreases in income taxes that could be material. Specifically, if actual results in our U.K. based businesses deviate negatively from expectations, we may be required to record a valuation allowance against our U.K. net deferred tax assets in 2016, or in a subsequent year. At December 31, 2015, the total of such net deferred tax assets, which include deferred taxes on the actuarial losses of our U.K. pension plan, was \$3.2 million.

Accounting for uncertainty in income taxes addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the consolidated financial statements. We recognize the tax benefit from an uncertain tax position if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

The guidance on accounting for uncertainty in income taxes also outlines de-recognition and classification, and requires companies to elect and disclose their method of reporting interest and penalties on income taxes. We recognize interest and penalties related to uncertain tax positions as part of income tax expense.

### Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

The Company is subject to market risk associated with changes in interest rates and foreign exchange rates. To mitigate this risk, the Company may utilize derivative financial instruments, including interest rate swaps and foreign currency forward contracts. The Company does not hold or issue derivative financial instruments for trading or speculative purposes and is not party to leveraged derivatives contracts.

#### Interest Rate Risk

Our debt instruments subject us to market risk associated with movements in interest rates. The fair value of the Company's total debt obligations held at December 31, 2015 was \$44.1 million. See Note 5 – Debt to the accompanying consolidated financial statements for a description of our debt agreements. A hypothetical 100 basis point increase or decrease in variable interest rates in 2015 would not significantly impact the annual interest expense.

#### Foreign Exchange Rate Risk

Although the majority of the Company's sales, expenses and cash flow are transacted in U.S. dollars, the Company has exposure to changes in foreign exchange rates, primarily the Euro and the British pound. The impact of currency movements on our financial results is largely mitigated by natural hedges in our operations. Approximately 75% of our total sales are conducted within the U.S. Almost all sales of product from the U.S. to other parts of the world are denominated in U.S. dollars. Sales from and within other currency zones are predominantly transacted in the currency of the country sourcing the product or service. Management estimates that a 10% appreciation of the U.S. dollar against other currencies would reduce full-year net sales and operating income by less than 1%.

The Company may also have foreign currency exposures related to buying and selling in currencies other than the local currency in which it operates and to certain balance sheet positions. If such transactional or balance sheet exposures are material, the Company may enter into matching foreign currency forward contracts from time to time to protect against variability in exchange rates. As of December 31, 2015, the only outstanding foreign currency contract was entered into to mitigate foreign exchange exposure related to the receipt of the euro-denominated proceeds to be received in connection with the sale of Bronto. The unrealized gain on this contract of \$0.6 million as of December 31, 2015 was recorded as a component of Other expense, net in the Consolidated Statement of Operations

for the year ended December 31, 2015. See Note 14 – Discontinued Operations to the accompanying consolidated financial statements for additional discussion.



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Item 8. Financial Statements and Supplementary Data.

FEDERAL SIGNAL CORPORATION

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Report of Independent Registered Public Accounting Firm  
To the Board of Directors and Stockholders of Federal Signal Corporation  
Oak Brook, Illinois

We have audited the accompanying consolidated balance sheets of Federal Signal Corporation and subsidiaries (the “Company”) as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive income, stockholders’ equity, and cash flows for each of the three years in the period ended December 31, 2015. Our audits also included the financial statement schedule as of December 31, 2015 listed in the Index at Item 15. These financial statements and financial statement schedule are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Federal Signal Corporation and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of December 31, 2015, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 29, 2016 expressed an unqualified opinion on the Company’s internal control over financial reporting.

/s/ Deloitte & Touche LLP

Chicago, Illinois

February 29, 2016

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Report of Independent Registered Public Accounting Firm  
To the Board of Directors and Stockholders of Federal Signal Corporation  
Oak Brook, Illinois

We have audited the internal control over financial reporting of Federal Signal Corporation and subsidiaries (the “Company”) as of December 31, 2015, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit.

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

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

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2015, of the Company and our report dated February 29, 2016 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ Deloitte & Touche LLP  
Chicago, Illinois  
February 29, 2016



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CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions, except per share data)	For the Years Ended December		
	31,	2014	2013
	2015	2014	2013
Net sales	\$768.0	\$779.1	\$712.9
Cost of sales	542.4	570.4	536.9
Gross profit	225.6	208.7	176.0
Selling, engineering, general and administrative expenses	122.0	120.0	113.7
Restructuring	0.4	—	0.7
Operating income	103.2	88.7	61.6
Interest expense	2.3	3.6	8.9
Debt settlement charges	—	—	8.7
Other expense, net	1.0	1.7	0.1
Income before income taxes	99.9	83.4	43.9
Income tax (expense) benefit	(34.1)	) (23.7)	) 108.6
Income from continuing operations	65.8	59.7	152.5
(Loss) gain from discontinued operations and disposal, net of income tax expense of \$8.3, \$1.0 and \$0.6, respectively	(2.3)	) 4.0	7.5
Net income	\$63.5	\$63.7	\$160.0
Basic earnings per share:			
Earnings from continuing operations	\$1.06	\$0.95	\$2.44
(Loss) gain from discontinued operations and disposal, net of tax	(0.04)	) 0.06	0.12
Net earnings per share	\$1.02	\$1.01	\$2.56
Diluted earnings per share:			
Earnings from continuing operations	\$1.04	\$0.94	\$2.41
(Loss) gain from discontinued operations and disposal, net of tax	(0.04)	) 0.06	0.12
Net earnings per share	\$1.00	\$1.00	\$2.53
Weighted average shares outstanding:			
Basic	62.2	62.7	62.6
Diluted	63.4	63.6	63.2
Cash dividends declared per common share	\$0.25	\$0.09	\$—
See notes to consolidated financial statements.			

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CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)	For the Years Ended December 31,		
	2015	2014	2013
Net income	\$63.5	\$63.7	\$160.0
Other comprehensive (loss) income:			
Change in foreign currency translation adjustment	(13.5	) (15.8	) 5.2
Change in unrecognized net actuarial losses related to pension benefit plans, net of income tax expense (benefit) of \$1.6, \$(11.6) and \$15.8, respectively	4.2	(21.7	) 32.9
Unrealized net (loss) gain on derivatives, net of income tax (benefit) expense of \$(0.0), \$(0.1) and \$0.2, respectively	—	(0.1	) 0.1
Total other comprehensive (loss) income	(9.3	) (37.6	) 38.2
Comprehensive income	\$54.2	\$26.1	\$198.2

See notes to consolidated financial statements.

Table of ContentsFEDERAL SIGNAL CORPORATION AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS

	As of December 31,	
(in millions, except per share data)	2015	2014
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$76.0	\$24.1
Accounts receivable, net of allowances for doubtful accounts of \$0.8 and \$0.7, respectively	73.0	73.6
Inventories	87.2	87.6
Prepaid expenses and other current assets	15.1	9.2
Current assets of discontinued operations	63.8	76.2
Total current assets	315.1	270.7
Properties and equipment, net	52.9	52.7
Goodwill	231.6	235.2
Deferred tax assets	20.1	45.1
Deferred charges and other assets	3.5	4.0
Long-term assets of discontinued operations	43.3	51.0
Total assets	\$666.5	\$658.7
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Current portion of long-term borrowings and capital lease obligations	\$0.4	\$6.2
Accounts payable	38.0	41.7
Accrued liabilities:		
Compensation and withholding taxes	18.6	22.6
Other current liabilities	31.6	35.7
Current liabilities of discontinued operations	28.6	32.9
Total current liabilities	117.2	139.1
Long-term borrowings and capital lease obligations	43.7	44.0
Long-term pension and other post-retirement benefit liabilities	55.2	62.6
Deferred gain	12.6	14.6
Other long-term liabilities	16.9	16.0
Long-term liabilities of discontinued operations	15.3	10.8
Total liabilities	260.9	287.1
Stockholders' equity:		
Common stock, \$1 par value per share, 90.0 shares authorized, 64.8 and 64.2 shares issued, respectively	64.8	64.2
Capital in excess of par value	195.6	187.0
Retained earnings	274.9	227.0
Treasury stock, at cost, 2.6 million and 1.7 million shares, respectively	(40.9 )	(27.1 )
Accumulated other comprehensive loss	(88.8 )	(79.5 )
Total stockholders' equity	405.6	371.6
Total liabilities and stockholders' equity	\$666.5	\$658.7

See notes to consolidated financial statements.

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CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	For the Years Ended December		
	31, 2015	2014	2013
Operating activities:			
Net income	\$63.5	\$63.7	\$160.0
Adjustments to reconcile net income to net cash provided by operating activities:			
Net loss (gain) on discontinued operations and disposal	2.3	(4.0)	(7.5)
Depreciation and amortization	12.3	11.5	11.0
Deferred financing costs	0.4	0.5	5.0
Deferred gain	(1.9)	(1.9)	(1.9)
Stock-based compensation expense	6.8	6.1	4.0
Excess tax benefit from stock-based compensation	(1.6)	(2.2)	—
Pension expense, net of funding	(3.8)	(5.9)	(1.4)
Deferred income taxes, including change in valuation allowance	25.9	18.9	(110.5)
Changes in operating assets and liabilities, net of effects of discontinued operations:			
Accounts receivable	(0.3)	1.5	(3.9)
Inventories	(3.3)	(15.5)	8.0
Prepaid expenses and other current assets	1.0	(0.1)	3.7
Accounts payable	(3.1)	0.4	(0.4)
Accrued liabilities	(7.2)	6.8	(1.7)
Income taxes	(1.5)	(0.9)	—
Other	1.6	2.2	0.4
Net cash provided by continuing operating activities	91.1	81.1	64.8
Net cash provided by (used for) discontinued operating activities	6.1	(8.8)	10.0
Net cash provided by operating activities	97.2	72.3	74.8
Investing activities:			
Purchases of properties and equipment	(9.6)	(13.7)	(11.6)
Proceeds from sales of properties and equipment	0.1	0.5	0.1
Proceeds from escrow receivable	4.0	7.4	—
Cash provided to customer	(6.0)	—	—
Decrease in restricted cash	—	—	1.0
Net cash used for continuing investing activities	(11.5)	(5.8)	(10.5)
Net cash used for discontinued investing activities	(1.3)	(5.8)	(5.4)
Net cash used for investing activities	(12.8)	(11.6)	(15.9)
Financing activities:			
(Decrease) increase in revolving lines of credit, net	—	(20.0)	17.5
Proceeds from issuance of long-term borrowings	—	—	75.0
Payments on long-term borrowings	(5.8)	(21.6)	(153.6)
Payments of debt financing fees	—	—	(6.1)
Purchases of treasury stock	(10.6)	(10.3)	—
Redemptions of common stock to satisfy withholding taxes related to stock-based compensation	(3.2)	—	—
Cash dividends paid to stockholders	(15.6)	(5.6)	—
Proceeds from stock-based compensation activity	1.0	2.6	2.6



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Excess tax benefit from stock-based compensation	1.6	2.2	—
Other, net	(0.4)	) (1.0)	) (1.0)
Net cash used for financing activities	(33.0)	) (53.7)	) (65.6)
Effects of foreign exchange rate changes on cash and cash equivalents	(0.8)	) (0.4)	) 0.8
Increase (decrease) in cash and cash equivalents	50.6	6.6	(5.9)
Cash and cash equivalents at beginning of year	30.4	23.8	29.7
Cash and cash equivalents at end of year	81.0	30.4	23.8
Less: Cash and cash equivalents of discontinued operations at end of year	(5.0)	) (6.3)	) (10.2)
Cash and cash equivalents of continuing operations at end of year	\$76.0	\$24.1	\$13.6

See notes to consolidated financial statements.

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CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in millions)	Common Stock Par Value	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at January 1, 2013	\$63.4	\$171.1	\$8.9	\$(16.4 )	\$(80.1 )	\$146.9
Net income			160.0			160.0
Total other comprehensive income					38.2	38.2
Stock-based payments:						
Stock-based compensation		3.6				3.6
Stock option exercises and other	0.4	2.0		(0.4 )		2.0
Common stock canceled		0.3				0.3
Balance at December 31, 2013	63.8	177.0	168.9	(16.8 )	(41.9 )	351.0
Net income			63.7			63.7
Total other comprehensive loss					(37.6 )	(37.6 )
Cash dividends declared (\$0.09 per share)			(5.6 )			(5.6 )
Stock-based payments:						
Stock-based compensation		5.5				5.5
Stock option exercises and other	0.4	2.3				2.7
Excess tax benefit from stock-based compensation		2.2				2.2
Stock repurchase program				(10.3 )		(10.3 )
Balance at December 31, 2014	64.2	187.0	227.0	(27.1 )	(79.5 )	371.6
Net income			63.5			63.5
Total other comprehensive loss					(9.3 )	(9.3 )
Cash dividends declared (\$0.25 per share)			(15.6 )			(15.6 )
Stock-based payments:						
Stock-based compensation		6.3				6.3
Stock option exercises and other	0.1	1.2		(0.5 )		0.8
Performance share unit transactions	0.5	(0.5 )		(2.7 )		(2.7 )
Excess tax benefit from stock-based compensation		1.6				1.6
Stock repurchase program				(10.6 )		(10.6 )
Balance at December 31, 2015	\$64.8	\$195.6	\$274.9	\$(40.9 )	\$(88.8 )	\$405.6

See notes to consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Description of the Business

Federal Signal Corporation was founded in 1901 and was reincorporated as a Delaware corporation in 1969.

References herein to the “Company,” “we,” “our” or “us” refer collectively to Federal Signal Corporation and its subsidiaries.

Products manufactured and services rendered by the Company are divided into two major operating segments:

Environmental Solutions Group and Safety and Security Systems Group. The individual operating businesses are organized as such because they share certain characteristics, including technology, marketing, distribution and product application, which create long-term synergies. The Company’s reportable segments are consistent with its operating segments. These segments are discussed in Note 13 – Segment Information.

Our fiscal year ends on December 31. All references to 2015, 2014 and 2013 relate to the fiscal year unless otherwise indicated.

Basis of Presentation and Consolidation

The accompanying consolidated financial statements represent the consolidation of Federal Signal Corporation and its subsidiaries included herein and have been prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) and in accordance with United States (“U.S.”) generally accepted accounting principles (“GAAP”). Intercompany balances and transactions have been eliminated in consolidation. As discussed in Note 14 – Discontinued Operations, on January 29, 2016, the Company completed the sale of its Bronto Skylift® business (“Bronto”) that represented its Fire Rescue Group. The consolidated financial statements for all periods presented have been recast to present the operating results of previously divested or exited businesses as discontinued operations, including the Fire Rescue Group. See Note 14 – Discontinued Operations for further details. Certain prior year amounts have been reclassified to conform to the current year presentation. These include adjustments to present the Fire Rescue Group as a discontinued operation and adjustments to reflect the adoption of Accounting Standards Update (“ASU”) No. 2015-17, “Balance Sheet Classification of Deferred Taxes” (“ASU 2015-17”), as discussed further in Note 6 – Income Taxes.

Non-U.S. Operations

Assets and liabilities of non-U.S. subsidiaries, other than those whose functional currency is the U.S. dollar, are translated at current exchange rates with the related translation adjustments reported in stockholders’ equity as a component of Accumulated other comprehensive loss. Accounts within the Consolidated Statements of Operations are translated at the average exchange rate during the period. Non-monetary assets and liabilities are translated at historical exchange rates.

Relating to transactions that are denominated in a currency other than the functional currency, the Company incurs foreign currency transaction gains or losses, which are recognized in the Consolidated Statement of Operations as incurred. For the years ended December 31, 2015, 2014 and 2013, the Company incurred foreign currency transaction losses, included in other expense, net in the Consolidated Statements of Operations, of \$1.5 million, \$1.7 million and \$0.2 million, respectively.

Fair Value Measurements

The Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs. Observable inputs are developed based on market data obtained from independent sources, while unobservable inputs reflect the Company’s assumptions about valuation based on the best information available in the circumstances. The three levels of inputs are classified as follows:

• Level 1 — quoted prices in active markets for identical assets or liabilities;

• Level 2 — observable inputs, other than quoted prices included in Level 1, such as quoted prices for markets that are not active, or other inputs that are observable or can be corroborated by observable market data; and

•

Level 3 — unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

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### Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less, when purchased, to be cash equivalents. The carrying amount of cash and cash equivalents approximates fair value because of the short-term maturity and highly liquid nature of these instruments.

### Accounts Receivable

The Company carries accounts receivable at the face amount less an allowance for doubtful accounts for estimated losses as a result of a customer's inability to make required payments. Management evaluates the aging of the accounts receivable balances, the financial condition of its customers, historical trends and the time outstanding of specific balances to estimate the amount of accounts receivables that may not be collected in the future and records the appropriate provision.

### Inventories

The Company's inventories are valued at the lower of cost or market. Cost is determined using the first-in, first-out method. Included in the cost of inventories are raw materials, direct wages and associated production costs.

### Properties and Equipment

Properties and equipment are stated at cost, net of depreciation. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets. Useful lives generally range from eight to 40 years for buildings and three to 15 years for machinery and equipment. Leasehold improvements are depreciated over the shorter of the remaining life of the lease or the useful life of the improvement. Depreciation expense is primarily included as a component of Cost of sales on the Consolidated Statements of Operations, with depreciation expense associated with certain assets used for administrative purposes being presented within Selling, engineering, general and administrative ("SEG&A") expenses. Depreciation expense was \$12.0 million, \$11.4 million and \$10.8 million in the years ended December 31, 2015, 2014 and 2013, respectively.

Properties and equipment includes certain equipment that is manufactured by the Company and subsequently transferred to a rental fleet for the purpose of leasing to end customers. The related cash flow activity associated with these transactions is reflected within operating activities on the Consolidated Statements of Cash Flows. Non-cash transfers from Inventories to Properties and equipment totaled \$3.1 million and \$4.1 million for the years ended December 31, 2015 and 2014, respectively. The rental income associated with this activity is not considered material to the Company's consolidated results of operations.

Properties and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

### Goodwill

Goodwill represents the excess of the cost of an acquired business over the amounts assigned to its net assets.

Goodwill is not amortized but is tested for impairment at a reporting unit level on an annual basis or when an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company performs its annual goodwill impairment test as of October 31.

In 2014 and 2013, the Company applied the qualitative assessment, outlined in Accounting Standards Codification ("ASC") 350, Intangibles — Goodwill and Other, to its reporting units and concluded that it was not "more likely than not" that the fair values of these reporting units were less than their carrying values. As a result, the Company was not required to perform the two-step impairment test described below for these reporting units in 2014 or 2013.

The Company applies the two-step quantitative test outlined in ASC 350 to each of its reporting units at least once every three years. As such, in 2015, a full valuation was performed for the Company's reporting units under the two-step test. The first step in the two-step approach is used to identify potential impairment, by comparing the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is unnecessary. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step compares the implied fair value of reporting unit goodwill with the carrying amount of that goodwill. If the carrying amount of reporting

unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. The Company generally determines the fair value of its reporting units using two valuation methods: the “Income Approach — Discounted Cash Flow Analysis” method, and the “Market Approach — Guideline Public Company Method.”

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Under the “Income Approach — Discounted Cash Flow Analysis” method, the key assumptions consider projected sales, cost of sales and operating expenses. These assumptions were determined by management utilizing our internal operating plan, including growth rates for revenues and operating expenses and margin assumptions. An additional key assumption under this approach is the discount rate, which is determined by reviewing current risk-free rates of capital and current market interest rates and by evaluating the risk premium relevant to the business segment.

Under the “Market Approach — Guideline Public Company Method,” the Company identified several publicly traded companies, including Federal Signal, which we believe have sufficiently relevant similarities to our businesses. For these companies, the Company used market values to calculate the mean ratio of invested capital to revenues and invested capital to EBITDA. Similar to the income approach discussed above, sales, cost of sales, operating expenses and their respective growth rates are key assumptions utilized. The market prices of the Company’s common stock and other guideline companies are additional key inputs.

The results of these two methods are weighted based upon management’s evaluation of the relevance of the two approaches. Management used a combination of the income and market approaches to determine the fair value of the reporting units in 2015.

The fair value of the reporting units significantly exceeded their carrying value. Relatively small changes in the Company’s key assumptions would not have resulted in any of the reporting units failing the first step of the two-step test.

The Company had no goodwill impairments for its continuing operations in 2015, 2014 or 2013. See Note 4 – Goodwill to the accompanying consolidated financial statements for a summary of the Company’s goodwill by segment.

### Pensions

The Company sponsors domestic and foreign defined benefit pension plans. Key assumptions used in the accounting for these employee benefit plans include the discount rate, expected long-term rate of return on plan assets, rate of increase in employee compensation levels and estimates of future mortality of plan participants.

The weighted-average discount rate used to measure pension liabilities and costs is selected using a hypothetical portfolio of high-quality bonds that would provide the necessary cash flow to match the projected benefit payments of the plans. The discount rate represents the rate at which our benefit obligations could effectively be settled as of the year-end measurement date. The weighted-average discount rate used to measure pension liabilities increased from 2014 to 2015. See Note 7 – Pensions for further discussion.

The expected long-term rate of return on plan assets is based on historical and expected returns for the asset classes in which the plans are invested.

In October 2014, the Society of Actuaries published new mortality tables and scales that project people will generally live longer than previously anticipated. The Company’s projected benefit obligations as of December 31, 2015 and 2014 were measured after taking the updated tables into consideration. The estimated impact of adopting these new tables in 2014 was an increase of approximately 4% in the projected benefit obligation of the Company’s U.S. defined benefit plan.

### Stock-Based Compensation Plans

The Company has various stock-based compensation plans, described more fully in Note 11 – Stock-Based Compensation. The fair value of stock options is determined using a Black-Scholes option pricing model.

### Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and (iii) the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

### Warranty

Sales of many of the Company’s products carry express warranties based on terms that are generally accepted in the Company’s marketplaces. The Company records provisions for estimated warranty, which are included within Cost of sales, at the time of sale based on historical experience. The Company periodically adjusts these provisions to reflect

actual experience. Infrequently, a material warranty issue can arise which is beyond the scope of the Company's historical experience. The Company records costs related to these issues as they become probable and estimable.



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The Company also sells optional extended warranty contracts that extend coverage beyond the initial term of the express warranty period. At the time of sale, revenue related to the extended warranty contract is deferred and recognized as income over the life of the contract. As of December 31, 2015 and 2014, deferred revenue associated with extended warranty contracts was \$2.6 million and \$2.4 million, respectively, and was included within Other current liabilities and Other long-term liabilities on the Consolidated Balance Sheets. Costs under extended warranty contracts are expensed as incurred.

### Workers' Compensation and Product Liability Reserves

Due to the nature of the Company's manufacturing and products, the Company is subject to claims for workers' compensation and product liability in the normal course of business. The Company is self-funded for a portion of these claims. The Company establishes a reserve using a third-party actuary for any known outstanding matters, including a reserve for claims incurred but not yet reported. The amount and timing of cash payments relating to these claims are considered to be reliably determinable given the nature of the claims and historical claim volumes to support the actuarial assumptions and judgments used to derive the expected loss payment patterns. As such, the reserves recorded are discounted using a risk-free rate that matches the average duration of the claims.

The Company has not established a reserve for potential losses resulting from the firefighter hearing loss litigation (see Note 9 – Legal Proceedings). If the Company is not successful in its defense after exhausting all appellate options, it will record a charge for such claims, to the extent they exceed insurance recoveries, at the appropriate time.

### Revenue Recognition

Net sales consist primarily of revenue from the sale of equipment, environmental vehicles, parts, service and maintenance contracts.

The Company recognizes revenue for products when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the sales price is fixed or determinable and (iv) collection is reasonably assured. A product is considered delivered to the customer once it has been shipped, and title and risk of loss have been transferred. For most of the Company's product sales, these criteria are met at the time the product is shipped; however, occasionally title passes later or earlier than shipment due to customer contracts or letter of credit terms. If at the outset of an arrangement the Company determines the arrangement fee is not, or is presumed not to be, fixed or determinable, revenue is deferred and subsequently recognized as amounts become due and payable and all other criteria for revenue recognition have been met. Taxes collected from customers and remitted to governmental authorities are recorded on a net basis and are excluded from revenue.

The Company enters into sales arrangements that may provide for multiple deliverables to a customer. These arrangements may include software and non-software components that function together to deliver the products' essential functionality. The Company identifies all goods and/or services that are to be delivered separately under the sales arrangement and allocates revenue to each deliverable based on relative fair values. Fair values are generally established using reliable third-party objective evidence, or management's best estimate of selling price, including prices charged when sold separately by the Company. In general, revenues are separated between hardware, integration and installation services. The allocated revenue for each deliverable is then recognized using appropriate revenue recognition methods.

Net sales are presented net of returns and allowances. Returns and allowances are calculated and recorded as a percentage of revenue based upon historical returns. Net sales include sales of products and billed freight related to product sales. Freight has not historically comprised a material component of Net sales.

### Product Shipping Costs

Product shipping costs are expensed as incurred and are included within Cost of sales.

### Research and Development

The Company invests in research to support development of new products and the enhancement of existing products and services. Expenditures for research and development by the Company were \$14.0 million in 2015, \$13.1 million in 2014 and \$11.0 million in 2013, and are included within SEG&A expenses.

### Income Taxes

We file a consolidated U.S. federal income tax return for Federal Signal Corporation and its eligible domestic subsidiaries. Our non-U.S. subsidiaries file income tax returns in their respective local jurisdictions. We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and

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tax benefit carryforwards. Deferred tax assets and liabilities at the end of each period are determined using enacted tax rates expected to apply to taxable income in the period in which the deferred tax liability or asset is expected to be settled or realized. A valuation allowance is established or maintained when, based on currently available information and other factors, it is more likely than not that all or a portion of a deferred tax asset will not be realized.

Accounting standards on accounting for uncertainty in income taxes address the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the consolidated financial statements. Under the guidance on accounting for uncertainty in income taxes, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The guidance on accounting for uncertainty in income taxes also outlines de-recognition and classification, as well as interest and penalties on income taxes.

**Litigation Contingencies**

The Company is subject to various claims, including pending and possible legal actions for product liability and other damages, and other matters arising in the ordinary course of the Company's business. The Company believes, based on current knowledge and after consultation with counsel, that the outcome of such claims and actions in the aggregate will not have an adverse effect on the Company's financial position or results of operations. However, in the event of unexpected future developments, it is possible that the ultimate resolution of such matters, if unfavorable, could have a material adverse effect on the Company's results of operations. Professional legal fees are expensed when incurred. We accrue for contingent losses when such losses are probable and reasonably estimable. In the event that estimates or assumptions of contingent losses are different from actual results, adjustments are made in subsequent periods to reflect more current information.

**NOTE 2 — INVENTORIES**

The following table summarizes the components of inventories:

(in millions)	2015	2014
Raw materials	\$35.3	\$40.6
Work in process	6.7	9.2
Finished goods	45.2	37.8
Total inventories	\$87.2	\$87.6

**NOTE 3 — PROPERTIES AND EQUIPMENT, NET**

The following table summarizes the components of properties and equipment, net:

(in millions)	2015	2014
Land	\$0.2	\$0.2
Buildings and improvements	24.7	21.8
Machinery and equipment	130.8	130.9
Total property and equipment, at cost	155.7	152.9
Less: Accumulated depreciation	102.8	100.2
Properties and equipment, net	\$52.9	\$52.7

In July 2008, the Company entered into sale-leaseback transactions for its Elgin and University Park, Illinois plant locations. Net proceeds received were \$35.8 million, resulting in a deferred gain of \$29.0 million. The deferred gain is being amortized over the 15-year life of the respective leases. The deferred gain balance was \$14.5 million and \$16.5 million at December 31, 2015 and 2014, respectively. Of these amounts, \$1.9 million and \$1.9 million, was included within Other current liabilities on the Consolidated Balance Sheets at December 31, 2015 and 2014, respectively.

The Company leases certain facilities and equipment under operating leases, some of which contain options to renew. Total rental expense on all operating leases was \$7.2 million in 2015, \$6.6 million in 2014 and \$7.0 million in 2013. Sublease income and contingent rentals relating to operating leases were insignificant. At December 31, 2015, minimum future rental commitments under operating leases having non-cancelable lease terms in excess of one year

aggregated \$43.3 million and were payable as follows: \$7.6 million in 2016, \$7.0 million in 2017, \$6.0 million in 2018, \$5.5 million in 2019, \$4.9 million in 2020 and \$12.3 million thereafter.

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## NOTE 4 — GOODWILL

The following table summarizes the carrying amount of goodwill by segment:

(in millions)	Environmental Solutions	Safety & Security Systems	Total
Balance at December 31, 2013	\$ 120.4	\$ 119.6	\$ 240.0
Translation adjustments	—	(4.8)	(4.8)
Balance at December 31, 2014	120.4	114.8	235.2
Translation adjustments	—	(3.6)	(3.6)
Balance at December 31, 2015	\$ 120.4	\$ 111.2	\$ 231.6

## NOTE 5 — DEBT

The following table summarizes the components of long-term debt and capital lease obligations, net:

(in millions)	2015	2014
2013 Credit Agreement:		
Revolving Credit Facility	\$—	\$—
Term Loan	43.4	49.2
Capital lease obligations	0.7	1.0
Total long-term borrowings and capital lease obligations, including current portion	44.1	50.2
Less: Current maturities	—	5.8
Less: Current capital lease obligations	0.4	0.4
Total long-term borrowings and capital lease obligations, net	\$43.7	\$44.0

The fair value of long-term debt is based on interest rates that we believe are currently available to us for issuance of debt with similar terms and remaining maturities (Level 2 input). The following table summarizes the carrying amounts and fair values of the Company's financial instruments:

(in millions)	2015		2014	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Long-term debt <sup>(a)</sup>	\$44.1	\$44.1	\$50.2	\$50.2

<sup>(a)</sup> Long-term debt includes current portions of long-term debt and current portions of capital lease obligations of \$0.4 million and \$6.2 million as of December 31, 2015 and 2014, respectively.

On January 27, 2016, the Company entered into an Amended and Restated Credit Agreement (the "2016 Credit Agreement"), by and among the Company and certain of its foreign subsidiaries (collectively, the "Borrowers"), Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, JPMorgan Chase Bank, N.A. as syndication agent, KeyBank National Association, as documentation agent, Wells Fargo Securities, LLC and J.P. Morgan Securities LLC, as joint lead arrangers and joint bookrunners, and the other lenders and parties signatory thereto.

The 2016 Credit Agreement is a \$325.0 million revolving credit facility, maturing on January 27, 2021, that provides for borrowings in the form of loans or letters of credit up to the aggregate availability under the facility, with a sub-limit of \$50.0 million for letters of credit. The 2016 Credit Agreement allows for the Borrowers to borrow in denominations of U.S. Dollars, Canadian Dollars (up to a maximum of C\$85.0 million) or euros (up to a maximum of €20.0 million). In addition, the Company may cause the commitments to increase by up to an additional \$75.0 million, subject to the approval of the applicable lenders providing such additional financing. Borrowings under the 2016 Credit Agreement may be used for working capital and general corporate purposes, including permitted acquisitions. The Company's domestic subsidiaries provide guarantees for all obligations of the Borrowers under the 2016 Credit Agreement, which is secured by a first priority security interest in all now or hereafter acquired domestic property and assets and the stock or other equity interests in each of the domestic subsidiaries and 65% of the outstanding voting capital stock of certain first-tier foreign subsidiaries, subject to certain exclusions.

Borrowings under the 2016 Credit Agreement bear interest, at the Company's option, at a base rate or a LIBOR rate, plus, in each case, an applicable margin. The applicable margin ranges from 0.00% to 1.25% for base rate borrowings and 1.00% to 2.25% for LIBOR borrowings. The Company must also pay a commitment fee to the lenders ranging between 0.15% to 0.30% per annum on the unused portion of the \$325.0 million revolving credit facility along with other standard fees. Letter of

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credit fees are payable on outstanding letters of credit in an amount equal to the applicable LIBOR margin plus other customary fees.

The Company is subject to certain leverage ratio and interest coverage ratio financial covenants under the 2016 Credit Agreement that are to be measured at each fiscal quarter-end. The 2016 Credit Agreement also includes a “covenant holiday” period, which allows for the temporary increase of the minimum leverage ratio following the completion of a permitted acquisition, or a series of permitted acquisitions, when the total consideration exceeds a specified threshold. In addition, the 2016 Credit Agreement includes customary negative covenants, subject to certain exceptions, restricting or limiting the Company’s and its subsidiaries’ ability to, among other things: (i) make non-ordinary course dispositions of assets, (ii) make certain fundamental business changes, such as merge, consolidate or enter into any similar combination, (iii) make restricted payments, including dividends and stock repurchases, (iv) incur indebtedness, (v) make certain loans and investments, (vi) create liens, (vii) transact with affiliates, (viii) enter into sale/leaseback transactions, (ix) make negative pledges and (x) modify subordinated debt documents.

Under the 2016 Credit Agreement, restricted payments, including dividends and stock repurchases, shall be permitted if (i) the Company’s leverage ratio is less than or equal to 2.50, (ii) the Company is in compliance with all other financial covenants and (iii) there are no existing defaults under the 2016 Credit Agreement. If its leverage ratio is more than 2.50, the Company is still permitted to fund (i) up to \$30.0 million of dividend payments, (ii) stock repurchases sufficient to offset dilution created by the issuance of equity as compensation to its officer, directors, employees and consultants and (iii) an incremental \$30.0 million of other cash payments.

The 2016 Credit Agreement contains customary events of default. If an event of default occurs and is continuing, the Borrowers may be required immediately to repay all amounts outstanding under the 2016 Credit Agreement and the commitments from the lenders may be terminated.

The 2016 Credit Agreement amends and restates the Company’s March 13, 2013 Credit Agreement (the “2013 Credit Agreement”) by and among the Company, as borrower, the lenders referred to therein, as lenders, Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, General Electric Capital Corporation, as syndication agent, and Wells Fargo Securities, LLC and GE Capital Markets, Inc., as joint lead arrangers and joint book managers. The 2013 Credit Agreement provided the Company with a \$225.0 million senior secured credit facility comprised of a five-year fully funded term loan of \$75.0 million and a five-year \$150.0 million revolving credit facility under which borrowings may be made from time to time during the five-year term.

The 2013 Credit Agreement was a five-year senior secured credit facility secured by a first priority security interest in all now or hereafter acquired domestic property and assets and the stock or other equity interests in each of the domestic subsidiaries and certain of the first-tier foreign subsidiaries, subject to certain exclusions. Under the terms of the 2013 Credit Agreement, the Company was required to make quarterly installment payments against the \$75.0 million term loan, with any remaining balance due on the maturity date of March 13, 2018. As a result of executing the 2016 Credit Agreement subsequent to December 31, 2015, but prior to the issuance of the financial statements, the \$6.9 million current portion of term loan debt outstanding as of December 31, 2015 has been reflected as a component of long-term borrowings and capital lease obligations on the Consolidated Balance Sheet. Under the 2013 Credit Agreement, the Company was allowed to prepay the term loan in whole or in part prior to maturity without premium or penalty. In the fourth quarter of 2014, the Company made a voluntary term loan prepayment of \$15.0 million. In the first quarter of 2016, the Company repaid the remaining \$43.4 million of principal outstanding under the 2013 Credit Agreement.

The 2013 Credit Agreement provided for loans and letters of credit in an amount up to an aggregate availability under the revolving credit facility of \$150.0 million, with a sub-limit of \$50.0 million for letters of credit. Borrowings under the 2013 Credit Agreement bore interest, at the Company’s option, at a base rate or a LIBOR rate, plus, in each case, an applicable margin. The applicable margin ranged from 1.00% to 2.00% for base rate borrowings and 2.00% to 3.00% for LIBOR borrowings. The Company was also required to pay a commitment fee to the lenders equal to a range of 0.25% to 0.45% per annum on the unused portion of the \$150.0 million revolving credit facility along with other standard fees. Letter of credit fees were also payable on outstanding letters of credit in an amount equal to the

applicable LIBOR margin plus other customary fees. The Company was allowed to prepay in whole or in part advances under the revolving credit facility portion without penalty or premium other than customary “breakage” costs with respect to LIBOR loans.

The 2013 Credit Agreement required the Company to comply with financial covenants related to the maintenance of a minimum fixed charge coverage ratio and maximum leverage ratio. The financial covenants were measured at each fiscal quarter-end. Restricted payments, including dividends, were permitted only if the pro-forma leverage ratio after giving effect to such payment is less than 3.25x, pro-forma compliance after giving effect to such payment was maintained for all other



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financial covenants and there were no existing defaults under the 2013 Credit Agreement. The Company was in compliance with all of its debt covenants as of, and throughout the year ended, December 31, 2015.

In the first quarter of 2013, upon execution of the 2013 Credit Agreement, the Company recorded \$8.7 million of costs related to the termination of its prior debt agreements. The costs included a \$4.2 million early termination penalty payment and a \$4.5 million write-off of the remaining unamortized deferred financing costs related to the prior debt agreements.

The Company incurred \$1.9 million of debt issuance costs associated with the execution of the 2013 Credit Agreement. Financing costs incurred in connection with the 2013 Credit Agreement were deferred and, prior to the execution of the 2016 Credit Agreement, were being amortized over the five-year term. The Company does not expect to write off a material amount of unamortized deferred financing fees associated with the 2013 Credit Agreement in connection with executing the 2016 Credit Agreement in the first quarter of 2016. The Company estimates that approximately \$1 million of debt issuance costs were incurred in connection with the execution of the 2016 Credit Agreement.

As of December 31, 2015, there was no cash drawn and \$19.2 million of undrawn letters of credit under the \$150.0 million revolving credit facility portion of the 2013 Credit Agreement, with \$130.8 million of net availability for borrowings. As of December 31, 2015, no amounts were drawn against the Company's non-U.S. lines of credit which provide for borrowings up to \$10.0 million.

For the years ended December 31, 2014 and December 31, 2013, gross borrowings under the Company's domestic revolving credit facility of the 2013 Credit Agreement were \$6.5 million and \$123.7 million, respectively. For the years ended December 31, 2014 and December 31, 2013, gross payments under the Company's domestic revolving credit facility of the 2013 Credit Agreement were \$26.5 million and \$106.2 million, respectively. There were no borrowings or repayments under the Company's domestic revolving credit facility of the 2013 Credit Agreement during 2015.

Aggregate maturities of total borrowings, giving effect to the 2016 Credit Agreement, amount to approximately \$0.4 million in 2016, \$0.3 million in 2017, none in 2018, none in 2019 and \$43.4 million in 2020 and thereafter. The weighted average interest rate on long-term borrowings was 2.4% at December 31, 2015.

The Company paid interest of \$1.9 million in 2015, \$3.0 million in 2014 and \$9.4 million in 2013.

**NOTE 6 — INCOME TAXES**

The following table summarizes the income tax expense (benefit) from continuing operations:

(in millions)	2015	2014	2013
Current:			
Federal	\$6.6	\$3.0	\$—
Foreign	—	0.3	0.4
State and local	1.8	1.3	0.9
Total current tax expense	8.4	4.6	1.3
Deferred:			
Federal	25.4	17.8	(112.1 )
Foreign	(2.0 )	(3.0 )	0.9
State and local	2.3	4.3	1.3
Total deferred tax expense (benefit)	25.7	19.1	(109.9 )
Total income tax expense (benefit)	\$34.1	\$23.7	\$(108.6 )

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The following table summarizes the differences between the statutory federal income tax rate and the effective income tax rate from continuing operations:

	2015		2014		2013	
Statutory federal income tax rate	35.0	%	35.0	%	35.0	%
State income taxes, net of federal tax benefit	3.3		3.7		3.3	
Valuation allowance	1.7		(4.5)	)	(279.4)	)
Domestic production deduction	(2.2)	)	(2.1)	)	(1.5)	)
Tax planning benefits, excluding valuation allowance effects	(6.0)	)	—		—	
Asset dispositions and write-offs	—		—		(3.3)	)
Repatriation effects	—		—		1.8	
Tax reserves	0.2		(1.2)	)	—	
Tax credits	1.9		(0.6)	)	(1.8)	)
Foreign tax rate effects	0.5		(2.0)	)	(2.7)	)
Other, net	(0.3)	)	0.1		1.2	
Effective income tax rate	34.1	%	28.4	%	(247.4)	)%

The following table summarizes income from continuing operations before taxes:

(in millions)	2015	2014	2013
U.S.	\$96.4	\$78.2	\$39.2
Non-U.S.	3.5	5.2	4.7
Income from continuing operations before taxes	\$99.9	\$83.4	\$43.9

ASC Topic 740, Income Taxes, requires that the future realization of deferred tax assets depends on the existence of sufficient taxable income in future periods. Possible sources of taxable income include taxable income in carryback periods, the future reversal of existing taxable temporary differences recorded as a deferred tax liability, tax-planning strategies that generate future income or gains in excess of anticipated losses in the carryforward period and projected future taxable income. If, based upon all available evidence, both positive and negative, it is more likely than not such deferred tax assets will not be realized, a valuation allowance is recorded. Significant weight is given to positive and negative evidence that is objectively verifiable. A company's three-year cumulative loss position is significant negative evidence in considering whether deferred tax assets are realizable and the accounting guidance restricts the amount of reliance the Company can place on projected taxable income to support the recovery of the deferred tax assets.

We continually evaluate the need to maintain a valuation allowance for deferred tax assets based on our assessment of whether it is more likely than not that deferred tax benefits will be realized through the generation of future taxable income. Appropriate consideration is given to all available evidence, both positive and negative, in assessing the need for a valuation allowance.

In the second quarter of 2013, this evaluation resulted in the determination that \$102.4 million of valuation allowance, initially recorded against U.S. deferred tax assets in 2010 due to the uncertainty of the realization of such assets, could be released. At that time, a qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies and general business risks resulted in a conclusion that it was more likely than not that a significant portion of our U.S. deferred tax assets would be realized. Factors considered in reaching this determination included the return to profitability on a cumulative basis and improved market demand, with expectations that such improvement would continue into the foreseeable future. In addition, in 2013, we exited a business segment that had produced losses.

Upon releasing the significant portion of our valuation allowance on U.S. deferred tax assets in the second quarter of 2013, a valuation allowance of \$10.4 million was maintained in accordance with the guidance provided in ASC 740-270-25-4 and was released through the effective tax rate as domestic income is recognized throughout the course of the year ended December 31, 2013. An additional \$3.4 million reduction in deferred tax valuation allowances was recorded in the year ended December 31, 2013.

In the fourth quarter of 2013, the Company also executed a tax planning strategy that resulted in the release of \$6.7 million of valuation allowance that was previously recorded against the Company's foreign tax credits, which would have begun to expire in 2015.

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As the Company no longer maintains a valuation allowance against most domestic tax assets, tax expense has been recognized on domestic earnings in each of the years ended December 31, 2015 and 2014. An income tax provision was recorded in each of the three years ended December 31, 2015 for foreign operations that were not in a cumulative loss position.

The Company recognized income tax expense of \$34.1 million for the year ended December 31, 2015, compared to income tax expense of \$23.7 million in the prior year. The Company's effective tax rate for the year ended December 31, 2015 was 34.1%, compared to 28.4% in 2014. The increase in tax expense in the current year was primarily due to higher pre-tax income levels and the absence of certain tax benefits in the prior year that did not recur, described further below. The Company's effective tax rate for the year ended December 31, 2015 was favorably impacted by a \$4.2 million net tax benefit associated with tax planning strategies, partially offset by a \$2.4 million adjustment of deferred tax assets and \$0.4 million of expense associated with a change in the enacted tax rate in the United Kingdom ("U.K.").

In the fourth quarter of 2014, based on a qualitative and quantitative analysis, the Company determined that \$3.5 million of valuation allowance previously recorded against deferred tax assets in Spain could be released. In reaching the conclusion that it was more likely that deferred tax assets would be realized, the Company evaluated current and expected earnings, the cumulative earnings position, industry and market trends, recent changes in Spanish tax legislation and general business risks.

The Company's effective tax rate for the year ended December 31, 2014 was also favorably impacted by a \$1.0 million net reduction in unrecognized tax benefits and an income tax benefit of \$0.4 million related to the decrease in foreign deferred tax liabilities resulting from a change in the enacted Spanish tax rate.

As noted in Note 15 – New Accounting Pronouncements, the Company adopted the provisions of ASU 2015-17 retrospectively in the fourth quarter of 2015. The adoption of this ASU will simplify the presentation of deferred income taxes and reduce complexity without decreasing the usefulness of information provided to users of financial statements. Upon adoption, \$18.8 million of deferred tax assets previously classified as a component of current assets in the Consolidated Balance Sheet at December 31, 2014 have been reclassified as a component of long-term deferred tax assets. The adoption of ASU 2015-17 did not have a significant impact on our results of operations or cash flows. The following table summarizes deferred income tax assets and liabilities:

(in millions)	2015	2014
Deferred tax assets:		
Depreciation and amortization	\$10.9	\$11.1
Accrued expenses	27.6	28.5
Net operating loss, alternative minimum tax, research and development and foreign tax credit carryforwards	29.1	44.6
Definite lived intangibles	1.4	1.6
Pension benefits	33.5	35.3
Deferred revenue	—	0.1
Gross deferred tax assets	102.5	121.2
Valuation allowance	(5.9)	(3.8)
Total deferred tax assets	96.6	117.4
Deferred tax liabilities:		
Depreciation and amortization	(6.6)	(5.0)
Expenses capitalized for book	(2.0)	(1.4)
Pension benefits	(14.7)	(13.4)
Indefinite lived intangibles	(52.6)	(52.1)
Other	(0.1)	(0.1)
Gross deferred tax liabilities	(76.0)	(72.0)
Net deferred tax assets	\$20.6	\$45.4

\* The above table does not include the deferred tax assets and corresponding full valuation allowance associated with the Company's discontinued operations, as described in Note 14 - Discontinued Operations.

The deferred tax asset for tax loss and tax credit carryforwards at December 31, 2015 includes federal net operating loss carryforwards of \$4.0 million, which begin to expire in 2027, state net operating loss carryforwards of \$6.8 million, which will begin to expire in 2016, and foreign net operating loss carryforwards of \$5.2 million, which have an indefinite life. The

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deferred tax asset for tax credit carryforwards includes U.S. research tax credit carryforwards of \$1.5 million, which will begin to expire in 2019, U.S. foreign tax credits of \$8.3 million, which will begin to expire in 2021, and U.S. alternative minimum tax credit carryforwards of \$3.3 million with no expiration.

The deferred tax asset for tax loss and tax credit carryforwards at December 31, 2014, included federal net operating loss carryforwards of \$5.1 million, state net operating loss carryforwards of \$5.7 million, foreign net operating loss carryforwards of \$3.0 million, U.S. research tax credit carryforwards of \$5.0 million, U.S. foreign tax credits of \$22.3 million, alternative motor vehicle credits of \$0.2 million, and U.S. alternative minimum tax credit carryforwards of \$3.3 million.

We continue to maintain a valuation allowance on certain state deferred tax assets that we believe, on a more likely than not basis, will not be realized. At December 31, 2015, the valuation allowance recorded against state net operating loss carryforwards totaled \$5.9 million.

The \$96.6 million of deferred tax assets at December 31, 2015, for which no valuation allowance is recorded, is anticipated to be realized through future taxable income or the future reversal of existing taxable temporary differences recorded as deferred tax liabilities at December 31, 2015. Should the Company determine that it would not be able to realize its remaining deferred tax assets in the future, an adjustment to the valuation allowance would be recorded in the period such determination is made.

Federal and state income taxes have not been provided on accumulated undistributed earnings of certain foreign subsidiaries aggregating approximately \$28.0 million and \$25.2 million at December 31, 2015 and 2014, respectively, as such undistributed earnings are considered to be indefinitely reinvested in the business. The determination of the amount of the unrecognized deferred tax liability related to the undistributed earnings is not practicable.

The following table summarizes the activity related to the Company's unrecognized tax benefits:

(in millions)	2015	2014	2013
Balance at January 1	\$2.0	\$3.9	\$4.0
Increases related to current year tax	0.3	0.4	0.5
Increases from prior period positions	—	0.3	0.4
Decreases from prior period positions	—	(0.1)	(0.2)
Decreases due to lapse of statute of limitations	(0.1)	(2.4)	(0.8)
Foreign currency translation	—	(0.1)	—
Balance at December 31	\$2.2	\$2.0	\$3.9

The Company's continuing practice is to recognize interest and penalties related to income tax matters in income tax expense. At December 31, 2015 and 2014, accruals for interest and penalties amounting to \$0.8 million and \$0.8 million, respectively, are included in the Consolidated Balance Sheets but are not included in the table above. At December 31, 2015 and 2014, reserves for unrecognized tax benefits, including interest and penalties, of \$2.5 million and \$2.5 million, respectively, were included within Other long-term liabilities on the Consolidated Balance Sheets. At December 31, 2015 and 2014, unrecognized tax benefits of \$0.5 million and \$0.3 million, respectively, were included as a reduction of Deferred tax assets on the Consolidated Balance Sheets.

All of the unrecognized tax benefits of \$2.2 million at December 31, 2015 would impact our annual effective tax rate, if recognized. We do not expect any significant change to our unrecognized tax benefits as a result of potential expiration of statute of limitations and settlements with tax authorities.

We file U.S., state and foreign income tax returns in jurisdictions with varying statutes of limitations. The 2012 through 2014 tax years generally remain subject to examination by federal tax authorities, whereas the 2011 through 2014 tax years generally remain subject to examination by most state tax authorities. In significant foreign jurisdictions, the tax years from 2011 through 2014 generally remain subject to examination by their respective tax authorities.

The Company paid income taxes of \$9.6 million in 2015, \$7.2 million in 2014 and \$1.3 million in 2013.



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## NOTE 7 — PENSIONS

The Company and its subsidiaries sponsor two defined benefit pension plans covering certain salaried and hourly employees. These plans have been closed to new participants for a number of years. Benefits under these plans are primarily based on final average compensation and years of service as defined within the provisions of the individual plans. As a result of plan amendments, the latest of which was in 2008, the only new benefits currently being accrued are salary increases for a limited group of participants. Those benefits will cease at the end of 2016, at which point all existing plans will be fully frozen.

The Company also participates in multi-employer pension plans that provide defined benefits to employees under U.S. collective bargaining agreements. None of these plans are considered individually significant to the Company.

Contributions to these plans totaled \$0.2 million, \$0.2 million and \$0.2 million for 2015, 2014 and 2013, respectively.

The following table summarizes net periodic pension expense for U.S. and non-U.S. benefit plans:

(in millions)	U.S. Benefit Plan			Non-U.S. Benefit Plan		
	2015	2014	2013	2015	2014	2013
Company-sponsored plans:						
Service cost	\$—	\$—	\$—	\$0.2	\$0.2	\$0.2
Interest cost	7.6	7.9	7.3	2.1	2.6	2.5
Expected return on plan assets	(10.3 )	(9.1 )	(8.8 )	(2.7 )	(3.6 )	(2.6 )
Amortization of actuarial loss	6.8	5.1	7.5	0.7	0.4	0.8
Total company-sponsored plans	4.1	3.9	6.0	0.3	(0.4 )	0.9
Multi-employer plans	0.2	0.2	0.2	—	—	—
Net periodic pension expense	\$4.3	\$4.1	\$6.2	\$0.3	\$(0.4 )	\$0.9

The following table summarizes the weighted-average assumptions used in determining pension costs:

	U.S. Benefit Plan			Non-U.S. Benefit Plan		
	2015	2014	2013	2015	2014	2013
Discount rate	4.2 %	5.1 %	4.2 %	3.5 %	4.5 %	4.1 %
Rate of increase in compensation levels	3.5 %	3.5 %	3.5 %	—	—	—
Expected long-term rate of return on plan assets	7.8 %	7.6 %	7.9 %	4.7 %	5.9 %	5.1 %

The following table summarizes the changes in the projected benefit obligation and plan assets:

(in millions)	U.S. Benefit Plan		Non-U.S. Benefit Plan	
	2015	2014	2015	2014
Benefit obligation, beginning of year	\$186.3	\$159.3	\$62.7	\$59.9
Service cost	—	—	0.2	0.2
Interest cost	7.6	7.9	2.1	2.6
Actuarial (gain) loss	(10.0 )	28.6	(2.5 )	7.0
Benefits and expenses paid	(9.6 )	(9.5 )	(3.5 )	(3.1 )
Foreign currency translation	—	—	(3.3 )	(3.9 )
Benefit obligation, end of year	\$174.3	\$186.3	\$55.7	\$62.7
Accumulated benefit obligation, end of year	\$173.5	\$184.4	\$55.7	\$62.7

The following table summarizes the weighted-average assumptions used in determining benefit obligations:

	U.S. Benefit Plan		Non-U.S. Benefit Plan	
	2015	2014	2015	2014
Discount rate	4.6 %	4.2 %	3.7 %	3.5 %
Rate of increase in compensation levels	3.5 %	3.5 %	—	—



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The following summarizes the changes in the fair value of plan assets:

(in millions)	U.S. Benefit Plan		Non-U.S. Benefit Plan	
	2015	2014	2015	2014
Fair value of plan assets, beginning of year	\$134.0	\$129.4	\$59.0	\$62.4
Actual return on plan assets	(3.3 )	5.9	0.8	2.2
Company contribution	7.0	8.2	1.1	1.2
Benefits and expenses paid	(9.6 )	(9.5 )	(3.5 )	(3.1 )
Foreign currency translation	—	—	(3.1 )	(3.7 )
Fair value of plan assets, end of year	\$128.1	\$134.0	\$54.3	\$59.0

As more fully described within Note 1 – Significant Accounting Policies, the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value.

Following is a description of the valuation methodologies used for assets measured at fair value for the U.S. benefit plan:

Cash and cash equivalents are comprised of cash on deposit and a money market fund, that invests principally in short-term instruments. The money-market fund is valued at the net asset value (“NAV”) of the shares in the fund. Equity investments represent domestic and foreign securities, including common stock, which are publicly traded on active exchanges and are valued based on quoted market prices. Certain equity securities, which are valued using a model that takes the underlying security’s “best” price, divides it by the applicable exchange rate and multiplies the result by a depository receipt factor, are categorized within Level 2 of the fair value hierarchy.

Fixed income investments include corporate bonds, asset-backed securities and treasury bonds. Corporate bonds are valued using pricing models that include bids provided by brokers or dealers, benchmark yields, base spreads and reported trades. Asset-backed securities are valued using models with readily observable data as inputs. Treasury bonds are valued based on quoted market prices in active markets.

Mutual funds are valued at the NAV, based on quoted market prices in active markets, of shares held by the plan at year end.

Real estate investments include public real estate investment trusts (“REIT”) and exchange traded REIT funds, which are publicly traded on active exchanges and are valued based on quoted market prices.

Following is a description of the valuation methodologies used for assets measured at fair value for the non-U.S. benefit plan:

Equity investments represent domestic and foreign securities, which are publicly traded on active exchanges and are valued based on quoted market prices. The inputs used to value certain other non-U.S. investments in equity securities both in the U.K. and other overseas markets are based on observable market information consistent with Level 2 of the fair value hierarchy inputs. Specifically, they are valued using the NAV as of the last business day of the year. The NAV is based on the underlying value of the assets owned by the fund minus its liabilities, and then divided by the number of shares outstanding. The value of the underlying assets is based on quoted prices in active markets.

Fixed income investments include treasury securities, which are valued based on quoted market prices in active markets, and corporate bonds which are either valued based on quoted market prices in active markets or other readily observable market data.

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

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The following summarizes the Company's pension assets in a three-tier fair value hierarchy for its benefit plans:

(in millions)	U. S. Benefit Plan				2014				
	2015	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$6.8	\$—	\$—	\$6.8	\$2.5	\$—	\$—	\$2.5	\$2.5
Equity securities:									
U.S. Large Cap	37.7	0.1	—	37.8	40.1	0.1	—	40.2	40.2
U.S. Small and Mid Cap	18.0	—	—	18.0	15.9	—	—	15.9	15.9
Federal Signal common stock	—	—	—	—	3.6	—	—	3.6	3.6
Developed international	12.8	6.9	—	19.7	9.9	4.5	—	14.4	14.4
Emerging markets	6.9	—	—	6.9	10.7	0.2	—	10.9	10.9
Fixed income:									
Government securities	2.7	0.3	—	3.0	1.1	—	—	1.1	1.1
Asset-backed securities	—	7.7	—	7.7	—	7.1	—	7.1	7.1
Corporate bonds	—	13.1	—	13.1	—	19.2	—	19.2	19.2
Mutual funds	0.7	—	—	0.7	1.2	—	—	1.2	1.2
Other investments:									
Mutual funds	10.5	—	—	10.5	13.9	—	—	13.9	13.9
Real estate	4.0	—	—	4.0	3.7	—	—	3.7	3.7
Total assets at fair value <sup>(a)</sup>	\$100.1	\$28.1	\$—	\$128.2	\$102.6	\$31.1	\$—	\$133.7	\$133.7

(a) Total assets at fair value in the table above exclude a net payable of \$0.1 million and a net receivable of \$0.3 million at December 31, 2015 and 2014, respectively.

(in millions)	Non-U. S. Benefit Plan				2014				
	2015	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash	\$9.2	\$—	\$—	\$9.2	\$11.5	\$—	\$—	\$11.5	\$11.5
Equity securities	5.3	34.8	—	40.1	6.0	35.9	—	41.9	41.9
Fixed income:									
Government securities	2.7	—	—	2.7	2.9	—	—	2.9	2.9
Corporate bonds	1.5	0.8	—	2.3	1.6	1.1	—	2.7	2.7
Total assets at fair value	\$18.7	\$35.6	\$—	\$54.3	\$22.0	\$37.0	\$—	\$59.0	\$59.0

The Company maintains a structured derisking investment strategy for the U.S. pension plan to improve alignment of assets and liabilities that includes: (i) maintaining a diversified portfolio that can provide a near-term weighted-average target return of approximately 7.8% or more, (ii) maintaining liquidity to meet obligations and (iii) prudently managing administrative and management costs. The target asset allocations for the U.S. pension plan are (i) between 45% and 75% equity securities, (ii) between 15% and 45% fixed income securities and (iii) between 0% and 20% in other investments, with the remainder represented by cash and cash equivalents. Other investments may include real estate investments and mutual funds investing in real estate, commodities or hedge funds.

Plan assets for the non-U.S. benefit plans consist principally of a diversified portfolio of equity securities, U.K. government securities, company bonds and debt securities. The target asset allocations for the non-U.S. benefit plan assets are between 50% and 75% equity securities and between 25% and 50% debt securities.

During the year ended December 31, 2015, the Company repurchased all of the remaining shares of its common stock from its U.S. benefit plan for a total cost of \$3.6 million. The repurchases were made under authorized stock repurchase programs further outlined in Note 12 – Stockholders' Equity. At December 31, 2014, total assets of the U.S. benefit plan included 0.2 million shares of the Company's common stock valued at \$3.6 million. Dividends paid on the Company's common stock held in the U.S. benefit plan did not exceed \$0.1 million in each of the years ended

December 31, 2015 and 2014.

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The following summarizes the funded status of the Company-sponsored plans:

(in millions)	U.S. Benefit Plan		Non-U.S. Benefit Plan	
	2015	2014	2015	2014
Fair value of plan assets, end of year	\$128.1	\$134.0	\$54.3	\$59.0
Benefit obligation, end of year	174.3	186.3	55.7	62.7
Funded status, end of year	\$(46.2 )	\$(52.3 )	\$(1.4 )	\$(3.7 )

At December 31, 2015 and 2014, the Company's non-U.S. benefit plans where the accumulated benefit obligation was in excess of the fair value of plan assets reflected an underfunded status of \$1.4 million and \$3.7 million, respectively.

The following summarizes the amounts recognized within our Consolidated Balance Sheets:

(in millions)	U.S. Benefit Plan		Non-U.S. Benefit Plan	
	2015	2014	2015	2014
Amounts recognized in Total liabilities include:				
Long-term pension and other post-retirement benefit liabilities	\$(46.2 )	\$(52.3 )	\$(1.4 )	\$(3.7 )
Net liability recorded	\$(46.2 )	\$(52.3 )	\$(1.4 )	\$(3.7 )
Amounts recognized in Accumulated other comprehensive loss include:				
Net actuarial loss	\$78.2	\$81.4	\$18.7	\$21.2
Net amount recognized, pre-tax	\$78.2	\$81.4	\$18.7	\$21.2

The Company expects \$6.2 million relating to amortization of the actuarial loss to be amortized from accumulated other comprehensive loss into net periodic benefit cost in 2016. In addition, following the sale of Bronto, the Company expects that \$0.3 million of actuarial losses will be amortized from accumulated other comprehensive loss in the first quarter of 2016 and included in the calculation of the gain on disposal.

The Company expects to contribute up to \$4.8 million to the U.S. benefit plan and up to \$1.5 million to the non-U.S. benefit plan in 2016. Future contributions to the plans will be based on such factors as annual service cost, the financial return on plan assets, interest rate movements that affect discount rates applied to plan liabilities and the value of benefit payments made.

The following summarizes the benefits expected to be paid under the Company's defined benefit plans in each of the next five years, and in aggregate for the five years thereafter:

(in millions)	U.S. Benefit Plan	Non-U.S. Benefit Plan
2016	\$8.4	\$3.4
2017	9.0	3.5
2018	9.0	3.6
2019	9.2	3.7
2020	10.5	3.8
2021-2025	54.7	21.0

The Company also sponsors a defined contribution retirement plan covering a majority of its employees. Participation is via automatic enrollment and employees may elect to opt out of the plan. Company contributions to the plan are based on employees' age and service as well as a percentage of employee contributions. The cost of these plans was \$7.5 million in 2015, \$7.1 million in 2014 and \$7.0 million in 2013.

Prior to September 30, 2003, the Company also provided medical benefits to certain eligible retired employees. These benefits are funded when the claims are incurred. Participants generally became eligible for these benefits at age 60 after completing at least 15 years of service. The plan provided for the payment of specified percentages of medical expenses reduced by any deductible and payments made by other primary group coverage and government programs. Effective September 30, 2003, the Company amended the retiree medical plan and effectively canceled coverage for all eligible active employees except for retirees and a limited group that qualified under a formula based on age and years of service. Accumulated post-retirement benefit liabilities of \$0.5 million and \$0.5 million at December 31,

2015 and 2014, respectively, were fully accrued. The net periodic post-retirement benefit costs have not been significant during the three-year period ended December 31, 2015.

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## NOTE 8 — COMMITMENTS AND CONTINGENCIES

## Financial Commitments

The Company provides indemnifications and other guarantees in the ordinary course of business, the terms of which range in duration and often are not explicitly defined. Specifically, the Company is occasionally required to provide letters of credit and bid and performance bonds to various customers, principally to act as security for retention levels related to casualty insurance policies and to guarantee the performance of subsidiaries that engage in export and domestic transactions. At December 31, 2015, the Company had outstanding performance and financial standby letters of credit, as well as outstanding bid and performance bonds, aggregating \$22.2 million. If any such letters of credit or bonds are called, the Company would be obligated to reimburse the issuer of the letter of credit or bond. The Company believes the likelihood of any currently outstanding letter of credit or bond being called is remote.

For certain independent Environmental Solutions Group dealers that purchase products financed by a third-party lender (the “Lender”), the Company also has provided a limited repurchase agreement to the Lender. In the event of a default by the applicable dealer and ultimate repossession of the underlying products by the Lender, the Company is obligated to repurchase those products from the Lender. The arrangement is subject to a maximum repurchase amount and the Company’s repurchase obligation is generally limited to products purchased by the dealer, and financed by the Lender, for a period of one year. The Company’s risk under the repurchase arrangement is partially mitigated by the value of the products repurchased under the agreement. As of December 31, 2015, the potential cash payments the Company could be required to make under the agreement were \$11.7 million.

The Company has recorded the fair value of its estimated net liability associated with losses from these guarantee and repurchase obligations on its Consolidated Balance Sheet based on historical experience and current facts and circumstances. Historical cash requirements and losses associated with these obligations have not been significant, but could increase if dealer defaults exceed current expectations. The Company’s repurchase accrual represents the expected losses resulting from obligations to repurchase products, after giving effect to proceeds anticipated to be received from the resale of those products to alternative customers. At December 31, 2015, the Company’s accrual for potential losses related to repurchase exposure was insignificant. Subsequent to December 31, 2015, the Company and the Lender executed an amendment to the agreement which removed the Company’s repurchase obligation effective January 1, 2016.

## Product Warranties

The Company issues product performance warranties to customers with the sale of its products. The specific terms and conditions of these warranties vary depending upon the product sold and country in which the Company does business, with warranty periods generally ranging from one to five years. The Company estimates the costs that may be incurred under its basic limited warranty and records a liability in the amount of such costs at the time the sale of the related product is recognized. Factors that affect the Company’s warranty liability include (i) the number of units under warranty from time to time, (ii) historical and anticipated rates of warranty claims and (iii) costs per claim. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary. The following table summarizes the changes in the Company’s warranty liabilities:

(in millions)	2015	2014
Balance at January 1	\$7.7	\$6.6
Provisions to expense	5.9	7.1
Actual costs incurred	(6.2	) (6.0
Balance at December 31	\$7.4	\$7.7

At December 31, 2015 and 2014, an accrual of \$1.1 million and \$1.3 million, respectively, was recorded in our Environmental Solutions Group in connection with a specific warranty matter. The accrual recorded represents management’s best estimate of the probable liability. The Company’s estimate may change as more information becomes available; however, the costs are not expected to have a material adverse effect on the Company’s results of

operations, financial position or cash flow.

**Environmental Liabilities**

Reserves of \$0.9 million and \$1.3 million related to the environmental remediation of the Pearland, Texas facility are included in liabilities of discontinued operations on the Consolidated Balance Sheets at December 31, 2015 and 2014, respectively. The facility was previously used by the Company's discontinued Pauluhn business and manufactured marine, offshore and industrial lighting products. The Company sold the facility in May 2012 and while the Company has not finalized its plans, it is

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probable that the site will require remediation. The recorded reserves are based on an undiscounted estimate of the range of costs to remediate the site, depending upon the remediation approach and other factors. The Company's estimate may change in the near term as more information becomes available; however, the costs are not expected to have a material adverse effect on the Company's results of operations, financial position or cash flow.

**NOTE 9 — LEGAL PROCEEDINGS**

The Company is subject to various claims, including pending and possible legal actions for product liability and other damages, and other matters arising in the ordinary course of the Company's business. On a quarterly basis, the Company reviews uninsured material legal claims against the Company and accrues for the costs of such claims as appropriate in the exercise of management's best judgment and experience. However, due to a lack of factual information available to the Company about a claim, or the procedural stage of a claim, it may not be possible for the Company to reasonably assess either the probability of a favorable or unfavorable outcome of the claim or to reasonably estimate the amount of loss should there be an unfavorable outcome. Therefore, for many claims, the Company cannot reasonably estimate a range of loss.

The Company believes, based on current knowledge and after consultation with counsel, that the outcome of such claims and actions will not have a material adverse effect on the Company's results of operations or financial condition. However, in the event of unexpected future developments, it is possible that the ultimate resolution of such matters, if unfavorable, could have a material adverse effect on the Company's results of operations, financial condition or cash flow.

**Hearing Loss Litigation**

The Company has been sued for monetary damages by firefighters who claim that exposure to the Company's sirens has impaired their hearing and that the sirens are therefore defective. There were 33 cases filed during the period of 1999 through 2004, involving a total of 2,443 plaintiffs, in the Circuit Court of Cook County, Illinois. These cases involved more than 1,800 firefighter plaintiffs from locations outside of Chicago. In 2009, six additional cases were filed in Cook County, involving 299 Pennsylvania firefighter plaintiffs. During 2014, another case was filed in Cook County involving 74 Pennsylvania firefighter plaintiffs.

The trial of the first 27 of these plaintiffs' claims occurred in 2008, whereby a Cook County jury returned a unanimous verdict in favor of the Company.

An additional 40 Chicago firefighter plaintiffs were selected for trial in 2009. Plaintiffs' counsel later moved to reduce the number of plaintiffs from 40 to nine. The trial for these nine plaintiffs concluded with a verdict against the Company and for the plaintiffs in varying amounts totaling \$0.4 million. The Company appealed this verdict. On September 13, 2012, the Illinois Appellate Court rejected this appeal. The Company thereafter filed a petition for rehearing with the Illinois Appellate Court, which was denied on February 7, 2013. The Company sought further review by filing a petition for leave to appeal with the Illinois Supreme Court on March 14, 2013. On May 29, 2013, the Illinois Supreme Court issued a summary order declining to accept review of this case. On July 1, 2013, the Company satisfied the judgments entered for these plaintiffs, which has resulted in final dismissal of these cases. A third consolidated trial involving eight Chicago firefighter plaintiffs occurred during November 2011. The jury returned a unanimous verdict in favor of the Company at the conclusion of this trial.

Following this trial, on March 12, 2012 the trial court entered an order certifying a class of the remaining Chicago Fire Department firefighter plaintiffs for trial on the sole issue of whether the Company's sirens were defective and unreasonably dangerous. The Company petitioned the Illinois Appellate Court for interlocutory appeal of this ruling. On May 17, 2012, the Illinois Appellate Court accepted the Company's petition. On June 8, 2012, plaintiffs moved to dismiss the appeal, agreeing with the Company that the trial court had erred in certifying a class action trial in this matter. Pursuant to plaintiffs' motion, the Illinois Appellate Court reversed the trial court's certification order. Thereafter, the trial court scheduled a fourth consolidated trial involving three firefighter plaintiffs, which began in December 2012. Prior to the start of this trial, the claims of two of the three firefighter plaintiffs were dismissed. On December 17, 2012, the jury entered a complete defense verdict for the Company.



Following this defense verdict, plaintiffs again moved to certify a class of Chicago Fire Department plaintiffs for trial on the sole issue of whether the Company's sirens were defective and unreasonably dangerous. Over the Company's objection, the trial court granted plaintiffs' motion for class certification on March 11, 2013 and scheduled a class action trial to begin on June 10, 2013. The Company filed a petition for review with the Illinois Appellate Court on March 29, 2013 seeking reversal of the class certification order.

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On June 25, 2014, a unanimous three-judge panel of the First District Illinois Appellate Court issued its opinion reversing the class certification order of the trial court. Specifically, the Appellate Court determined that the trial court's ruling failed to satisfy the class-action requirements that the common issues of the firefighters' claims predominate over the individual issues and that there is an adequate representative for the class. During a status hearing on October 8, 2014, plaintiffs represented to the Court that they would again seek to certify a class of firefighters on the issue of whether the Company's sirens were defective and unreasonably dangerous. On January 12, 2015, plaintiffs filed motions to amend their complaints to add class action allegations with respect to Chicago firefighter plaintiffs as well as the approximately 1,800 firefighter plaintiffs from locations outside of Chicago. On March 11, 2015, the trial court granted plaintiff's motions to amend their complaints. Plaintiffs have indicated that they will now file motions to certify classes in these cases. On April 24, 2015, the cases were transferred to Cook County chancery court, which will decide all class certification issues. The Company intends to continue its objections to any attempt at certification. The Company also has filed motions to dismiss cases involving firefighters located outside of Cook County based on improper venue. Plaintiffs have requested discovery from the Company related to these venue motions. The Court has scheduled a further status hearing regarding venue matters for March 18, 2016.

The Company has also been sued on this issue outside of the Cook County, Illinois venue. Many of these cases have involved lawsuits filed by a single attorney in the Court of Common Pleas, Philadelphia County, Pennsylvania. During 2007 and through 2009, this attorney filed a total of 71 lawsuits involving 71 plaintiffs in this jurisdiction. Three of these cases were dismissed pursuant to pretrial motions filed by the Company. Another case was voluntarily dismissed. Prior to trial in four cases, the Company paid nominal sums to obtain dismissals.

Three trials occurred in Philadelphia involving these cases filed in 2007 through 2009. The first trial involving one of these plaintiffs occurred in 2010, when the jury returned a verdict for the plaintiff. In particular, the jury found that the Company's siren was not defectively designed, but that the Company negligently constructed the siren. The jury awarded damages in the amount of \$0.1 million, which was subsequently reduced to \$0.08 million. The Company appealed this verdict. Another trial, involving nine Philadelphia firefighter plaintiffs, also occurred in 2010 when the jury returned a defense verdict for the Company as to all claims and all plaintiffs involved in that trial. The third trial, also involving nine Philadelphia firefighter plaintiffs, was completed during 2010 when the jury returned a defense verdict for the Company as to all claims and all plaintiffs involved in that trial.

Following defense verdicts in the last two Philadelphia trials, the Company negotiated settlements with respect to all remaining filed cases in Philadelphia at that time, as well as other firefighter claimants represented by the attorney who filed the Philadelphia cases. On January 4, 2011, the Company entered into a Global Settlement Agreement (the "Settlement Agreement") with the law firm of the attorney representing the Philadelphia claimants, on behalf of 1,125 claimants the firm represented (the "Claimants") and who had asserted product claims against the Company (the "Claims"). Three hundred eight of the Claimants had lawsuits pending against the Company in Cook County, Illinois. The Settlement Agreement, as amended, provided that the Company pay a total amount of \$3.8 million (the "Settlement Payment") to settle the Claims (including the costs, fees and other expenses of the law firm in connection with its representation of the Claimants), subject to certain terms, conditions and procedures set forth in the Settlement Agreement. In order for the Company to be required to make the Settlement Payment: (i) each Claimant who agreed to settle his or her claims had to sign a release acceptable to the Company (a "Release"), (ii) each Claimant who agreed to the settlement and who was a plaintiff in a lawsuit, had to dismiss his or her lawsuit with prejudice, (iii) by April 29, 2011, at least 93% of the Claimants identified in the Settlement Agreement must have agreed to settle their claims and provide a signed Release to the Company and (iv) the law firm had to withdraw from representing any Claimants who did not agree to the settlement, including those who filed lawsuits. If the conditions to the settlement were met, but less than 100% of the Claimants agreed to settle their Claims and sign a Release, the Settlement Payment would be reduced by the percentage of Claimants who did not agree to the settlement.

On April 22, 2011, the Company confirmed that the terms and conditions of the Settlement Agreement had been met and made a payment of \$3.6 million to conclude the settlement. The amount was based upon the Company's receipt of 1,069 signed releases provided by Claimants, which was 95.02% of all Claimants identified in the Settlement

Agreement.

The Company generally denies the allegations made in the claims and lawsuits by the Claimants and denies that its products caused any injuries to the Claimants. Nonetheless, the Company entered into the Settlement Agreement for the purpose of minimizing its expenses, including legal fees, and avoiding the inconvenience, uncertainty and distraction of the claims and lawsuits.

During April through October 2012, 20 new cases were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. These cases were filed on behalf of 20 Philadelphia firefighters and involve various defendants in addition to the Company. Five of these cases were subsequently dismissed. The first trial involving these 2012 Philadelphia cases occurred

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during December 2014 and involved three firefighter plaintiffs. The jury returned a verdict in favor of the Company. Following this trial, all of the parties agreed to settle cases involving seven firefighter plaintiffs set for trial during January 2015 for nominal amounts per plaintiff. In January 2015, plaintiffs' attorneys filed two new complaints in the Court of Common Pleas, Philadelphia, Pennsylvania on behalf of approximately 70 additional firefighter plaintiffs. The vast majority of the firefighters identified in these complaints are located outside of Pennsylvania. One of the complaints in these cases, which involves 11 firefighter plaintiffs from the District of Columbia, has been removed to federal court in the Eastern District of Pennsylvania. With respect to claims of other out-of-state firefighters involved in these two cases, the Company moved to dismiss these claims as improperly filed in Pennsylvania. The Court granted this motion and dismissed these claims on November 5, 2015. During August through December 2015, another nine new cases were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. These cases involve a total of 193 firefighters, most of whom are located outside of Pennsylvania. The Company is seeking dismissal of claims filed by these out-of-state firefighters as improperly filed in Pennsylvania.

During April through July 2013, additional cases were filed in Allegheny County, Pennsylvania. These cases involve 247 plaintiff firefighters from Pittsburgh and various defendants, including the Company. After the Company filed pretrial motions, the Court dismissed claims of 41 Pittsburgh firefighter plaintiffs. An initial trial involving eight Pittsburgh firefighters has been scheduled for March 2016. During March 2014, an action also was brought in the Court of Common Pleas of Erie County, Pennsylvania on behalf of 61 firefighters. This case likewise involves various defendants in addition to the Company. After the Company filed pretrial motions, 32 Erie County firefighter plaintiffs voluntarily dismissed their claims. On September 17, 2014, 20 lawsuits, involving a total of 193 Buffalo Fire Department firefighters, were filed in the Supreme Court of the State of New York, Erie County. Several product manufacturers, including the Company, have been named as defendants in these cases. All of the cases filed in Erie County, New York have been removed to federal court in the Western District of New York. During February 2015, a lawsuit involving one New York City firefighter plaintiff was filed in the Supreme Court of the State of New York, New York County. Plaintiff named the Company as well as several other parties as defendants. That case has been transferred to federal court in the Northern District of New York. The Company also is aware that a lawsuit involving eight New York City firefighters was filed in New York County, New York, on April 24, 2015. The Company has not yet been served in that case. During November and December 2015, 23 new cases involving a total of 210 firefighters were filed in various counties in the New York City area. During November 2015, the Company was also served with a complaint filed in Union county, New Jersey state court, involving 34 New Jersey firefighters. During January 2016, three additional cases were filed in various New Jersey state courts. These cases involve a total of 41 firefighters, most of whom reside in New Jersey and worked at New Jersey Fire Departments.

From 2007 through 2009, firefighters also brought hearing loss claims against the Company in New Jersey, Missouri, Maryland and Kings County, New York. All of those cases, however, were dismissed prior to trial, including four cases in the Supreme Court of Kings County, New York that were dismissed upon the Company's motion in 2008. On appeal, the New York appellate court affirmed the trial court's dismissal of these cases. Plaintiffs' attorneys have threatened to file additional lawsuits. The Company intends to vigorously defend all of these lawsuits, if filed. The Company's ongoing negotiations with its insurer, CNA, over insurance coverage on these claims have resulted in reimbursements of a portion of the Company's defense costs. These reimbursements are recorded as a reduction of corporate operating expenses. For the years ended December 31, 2015, 2014 and 2013, the Company recorded reimbursements from CNA of \$0.3 million, \$0.3 million and \$0.5 million, respectively, related to legal costs, respectively.

#### Latvian Commercial Dispute

On June 12, 2014, a Latvian trial court issued a summary ruling against the Company's former Bronto subsidiary in a lawsuit relating to a commercial dispute. The dispute involves a transaction for the 2008 sale of three Bronto units that were purchased by a financing company for lease to a Latvian fire department. The lessor and the Latvian fire department sought to rescind the contract after delivery, despite the fact that an independent third party, selected by the lessor, had certified that the vehicles satisfied the terms of the contract. The adverse judgment requires Bronto to

refund the purchase price and pay interest and attorneys' fees. The trial court denied the lessor's claim against Bronto for alleged damages relating to lost lease income.

The Company continues to believe that the claims against Bronto are invalid and that Bronto fully satisfied the terms of the subject contract. Accordingly, on July 30, 2014, the Company filed an appeal with the Civil Chamber of the Supreme Court of Latvia seeking a reversal of the trial court's ruling. The appeal hearing with the Supreme Court is currently scheduled for April 2016.

As of December 31, 2015, the Company has not accrued any liability within its consolidated financial statements for this lawsuit. In evaluating whether a charge to record a reserve was necessary, the Company analyzed all of the available information, including the legal reasoning applied by the judge of the trial court in reaching its decision. Based on the

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Company's analysis, and consultations with external counsel, the Company has assessed the likelihood of a successful appeal to be more likely than not and therefore does not believe that a probable loss has been incurred.

In connection with the sale of Bronto to Morita Holdings Corporation ("Morita"), discussed further in Note 14, the Company and Morita agreed that the Company will remain in control of negotiations and proceedings relating to the appeal and fund the legal costs associated therewith. The Company also agreed to compensate Morita for 50% of any liability resulting from a final and non-appealable decision of a court of competent jurisdiction, less 50% of legal fees incurred by the Company between the date of sale and the date of receiving such decision.

In the event that the appeal of the initial judgment is unsuccessful or not fully successful, and after considering the agreement to share any resulting liability, the Company would expect to record a charge as a component of (Loss) gain from discontinued operations and disposal, that could range from zero to approximately \$2.5 million. This range includes estimates of interest that will continue to accrue throughout the appeal process.

**NOTE 10 — EARNINGS PER SHARE**

The Company computes earnings per share ("EPS") in accordance with ASC 260, Earnings per Share, which requires that non-vested restricted stock containing non-forfeitable dividend rights should be treated as participating securities pursuant to the two-class method. Under the two-class method, net income is reduced by the amount of dividends declared in the period for common stock and participating securities. The remaining undistributed earnings are then allocated to common stock and participating securities as if all of the net income for the period had been distributed. The amounts of distributed and undistributed earnings allocated to participating securities for the years ended December 31, 2015, 2014 and 2013 were insignificant and did not materially impact the calculation of basic or diluted EPS.

Basic EPS is computed by dividing income or loss available to common stockholders by the weighted average number of shares of common stock and non-vested restricted stock awards outstanding for the year.

Diluted EPS is computed using the weighted average number of shares of common stock and non-vested restricted stock awards outstanding for the year plus the effect of dilutive potential common shares outstanding during the year. The dilutive effect of common stock equivalents is determined using the more dilutive of the two-class method or alternative methods. We use the treasury stock method to determine the potentially dilutive impact of our employee stock options and restricted stock units, and the contingently issuable method for our performance-based restricted stock unit awards.

For the years ended December 31, 2015, 2014 and 2013, options to purchase 0.8 million, 0.5 million and 0.9 million shares of the Company's common stock, respectively, had an anti-dilutive effect on EPS, and accordingly, are excluded from the calculation of diluted EPS.

The following table reconciles net income to basic and diluted EPS:

(in millions, except per share data)	2015	2014	2013
Income from continuing operations	\$65.8	\$59.7	\$152.5
(Loss) gain from discontinued operations and disposal, net of tax	(2.3	) 4.0	7.5
Net income	\$63.5	\$63.7	\$160.0
Weighted average shares outstanding — Basic	62.2	62.7	62.6
Dilutive effect of common stock equivalents	1.2	0.9	0.6
Weighted average shares outstanding — Diluted	63.4	63.6	63.2
Basic earnings per share:			
Earnings from continuing operations	\$1.06	\$0.95	\$2.44
(Loss) gain from discontinued operations and disposal, net of tax	(0.04	) 0.06	0.12
Net earnings per share	\$1.02	\$1.01	\$2.56
Diluted earnings per share:			
Earnings from continuing operations	\$1.04	\$0.94	\$2.41
(Loss) gain from discontinued operations and disposal, net of tax	(0.04	) 0.06	0.12
Net earnings per share	\$1.00	\$1.00	\$2.53

NOTE 11 — STOCK-BASED COMPENSATION

The Company's stock compensation plan, approved by the Company's stockholders and administered by the Compensation and Benefits Committee of the Board of Directors of the Company (the "CBC"), provides for the grant of incentive stock options,

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restricted stock and other stock-based awards or units to key employees and directors. The plan authorizes the grant of up to 7.8 million shares or units through April 2025. At December 31, 2015, approximately 7.3 million shares were available for future issuance under the plan. These share or unit amounts exclude amounts that were issued under prior stock compensation plans.

**Stock Options**

Stock options vest equally over the three years from the date of the grant. The cost of stock options, based on their fair value at the date of grant, is charged to expense over the respective vesting periods. Stock options normally become exercisable at a rate of one-third annually and in full on the third anniversary date. Under the plan, all options and rights must be exercised within ten years from date of grant. At the Company's discretion, vested stock option holders are permitted to elect an alternative settlement method in lieu of purchasing common stock at the option price. The alternative settlement method permits the employee to receive, without payment to the Company, cash, shares of common stock or a combination thereof equal to the excess of market value of common stock over the option purchase price. The Company has historically settled all such options in common stock and intends to continue to do so. Stock options do not have voting or dividend rights until such time that the options are exercised and shares have been issued.

The weighted average fair value of options granted during 2015, 2014 and 2013 was \$6.12, \$7.16 and \$4.56, respectively.

The fair value of each option grant was estimated using the Black-Scholes option pricing model with the following weighted average assumptions:

	2015	2014	2013	
Dividend yield	1.5	% 0.8	% —	%
Expected volatility	46	% 57	% 59	%
Risk free interest rate	1.5	% 1.9	% 1.0	%
Weighted average expected option life in years	5.7	5.8	5.8	

The expected life of options represents the weighted average period of time that options granted are expected to be outstanding giving consideration to vesting schedules and the Company's historical exercise patterns. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of the grant for periods corresponding with the expected life of the options. Expected volatility is based on historical volatility of the Company's common stock. Dividend yields are based on historical dividend payments.

The following summarizes stock option activity:

(in millions)	Option Shares			Weighted Average Exercise Price		
	2015	2014	2013	2015	2014	2013
Outstanding, at beginning of year	2.0	2.1	2.3	\$9.28	\$8.63	\$8.93
Granted	0.3	0.3	0.5	16.08	14.36	8.50
Exercised	(0.1 )	(0.3 )	(0.3 )	7.34	7.49	7.47
Canceled or expired	(0.1 )	(0.1 )	(0.4 )	14.69	14.33	10.94
Outstanding, at end of year	2.1	2.0	2.1	\$10.29	\$9.28	\$8.63
Exercisable, at end of year	1.4	1.2	1.2	\$8.47	\$8.64	\$9.85

The following table summarizes information for stock options outstanding as of December 31, 2015 under all plans:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Shares	Weighted Average Remaining Life	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
	(in millions)	(in years)		(in millions)	
\$5.01 — \$10.00	1.1	6.1	\$6.73	1.0	\$6.52
10.01 — 15.00	0.5	6.2	13.11	0.3	12.18
15.01 — 20.00	0.5	7.0	16.22	0.1	16.60



2.1	6.3	\$10.29	1.4	\$8.47
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The aggregate intrinsic value of stock options outstanding and exercisable at December 31, 2015 was \$10.6 million. The total compensation expense related to all stock option compensation plans was \$2.0 million, \$1.7 million and \$1.5 million for the years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, there was \$2.4 million of total

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unrecognized compensation cost related to stock options that is expected to be recognized over the weighted-average period of approximately 1.8 years.

**Restricted Stock**

Restricted stock awards and restricted stock units (collectively, “restricted stock”) are granted to employees at no cost. Restricted stock primarily cliff vests at the third anniversary from the date of grant, provided the recipient is still employed by the Company on the vesting date. The cost of restricted stock, based on the fair market value of the underlying shares at the date of grant, is charged to expense over the respective vesting periods. Shares associated with non-vested restricted stock awards have the same voting rights as the Company’s common stock and have non-forfeitable rights to dividends. Shares associated with non-vested restricted stock units do not have voting or dividend rights.

The following table summarizes restricted stock activity for the year ended December 31, 2015:

	Number of Restricted Shares (in millions)	Weighted Average Price per Share
Outstanding and non-vested, at December 31, 2014	0.3	\$ 8.63
Granted	0.1	16.18
Vested	(0.2	) 8.35
Forfeited	—	11.66
Outstanding and non-vested, at December 31, 2015	0.2	\$ 12.70

The total compensation expense related to all restricted stock compensation plans was \$1.2 million, \$1.0 million and \$1.1 million for the years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015, there was \$0.8 million of total unrecognized compensation cost related to restricted stock that is expected to be recognized over the weighted-average period of approximately 1.7 years.

**Performance Awards**

In each of the three years in the period ended December 31, 2015, the Company granted performance-based restricted stock unit awards (“PSUs”) to certain executives and other non-executive officers. Performance targets associated with PSUs are set annually and approved by the CBC. At the Company’s discretion, actual payment of the awards earned shall be in cash or in common stock of the Company, or in a combination of both. The Company intends to settle all such awards by issuing shares of its common stock. The number of shares of common stock that the Company may issue in connection with these PSUs can range from 0% to 200% of target, depending upon achievement against the performance targets. Shares associated with non-vested PSUs do not have voting or dividend rights until issuance. The Company assesses the probability of vesting, based on expected achievement against these performance targets, on a quarterly basis.

The cost of PSUs, based on their fair market value at the date of grant, is charged to expense over the respective vesting periods, which is the three-year period ended December 31, 2015 for the 2013 grants, the three-year period ended December 31, 2016 for the 2014 grants and the three-year period ended December 31, 2017 for the 2015 grants. The PSUs granted in 2015 have a three-year performance period ending December 31, 2017, in which the Company must achieve certain cumulative EPS from continuing operations and a certain average return on invested capital, which are performance conditions per ASC 718. If earned, these shares would vest in full on December 31, 2017. The PSUs granted in 2014 have a two-year performance period ending December 31, 2015, in which the Company must achieve certain cumulative EPS from continuing operations and a certain average return on invested capital, which are performance conditions per ASC 718, followed by a one-year service requirement (i.e., if earned, these shares would vest in full on December 31, 2016). Based on the achievement of EPS and return on invested capital during the two-year performance period at the maximum level, 200% of the target shares are considered to have been earned. The PSUs granted in 2014 will vest on December 31, 2016, provided that the requisite service requirement is satisfied.

The PSUs granted in 2013 had a one-year performance period ending December 31, 2013, in which a certain EPS from continuing operations was targeted, followed by a two-year service requirement. The EPS threshold associated with the 2013 grants was achieved at the maximum level, and 200% of the target shares were earned. The PSUs granted in 2013 became fully vested on December 31, 2015. The underlying shares were issued to participants in the first quarter of 2016.

Compensation expense included in the Consolidated Statements of Operations for the PSUs in the years ended December 31, 2015, 2014 and 2013 was \$3.5 million, \$3.4 million and \$1.4 million, respectively.

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As of December 31, 2015 and 2014, there was \$2.6 million and \$3.6 million of total unrecognized compensation cost related to PSUs, respectively, that is expected to be recognized over the weighted-average period of 1.5 years and 1.7 years, respectively.

The following table summarizes PSU activity for the year ended December 31, 2015:

	Number of PSUs	Weighted Average Price per Share
	(in millions)	
Outstanding and non-vested, at December 31, 2014	0.4	\$ 10.89
Granted <sup>(a)</sup>	0.4	11.62
Vested	(0.5	) 8.66
Forfeited	—	11.26
Outstanding and non-vested, at December 31, 2015	0.3	\$ 15.28

<sup>(a)</sup> Includes 0.2 million PSUs, representing the effect of the PSUs granted in 2013 being earned at 200% of target. The PSUs granted in 2013 vested on December 31, 2015.

**Excess Tax Benefits**

For income tax purposes, stock-based compensation expense is deductible in the year of exercise or vesting based on the intrinsic value of the award on the date of exercise or vesting. For financial reporting purposes, stock-based compensation expense is based upon grant-date fair value and amortized over the vesting period. Excess tax benefits represent the excess tax deduction received by the Company resulting from the difference between the stock-based compensation expense deductible for income tax purposes and the stock-based compensation expense recognized for financial reporting purposes. Excess tax benefits are recorded to Capital in excess of par value on the Consolidated Statements of Stockholders' Equity. Excess tax benefits for the years ended December 31, 2015 and 2014 were \$1.6 million and \$2.2 million, respectively, and are presented as a cash outflow from operating activities and as a cash inflow from financing activities on the Consolidated Statements of Cash Flows.

**NOTE 12 — STOCKHOLDERS' EQUITY**

The Company's Board of Directors (the "Board") has the authority to issue 90.0 million shares of common stock at a par value of \$1 per share. The holders of common stock (i) may receive dividends subject to all of the rights of the holders of preference stock, (ii) shall be entitled to share ratably upon any liquidation of the Company in the assets of the Company, if any, remaining after payment in full to the holders of preference stock, and (iii) receive one vote for each common share held and shall vote together share for share with the holders of voting shares of preference stock as one class for the election of directors and for all other purposes. The Company has 64.8 million and 64.2 million common shares issued as of December 31, 2015 and 2014, respectively. Of those amounts, 62.2 million and 62.5 million common shares were outstanding as of December 31, 2015 and 2014, respectively.

The Board is also authorized to provide for the issuance of 0.8 million shares of preference stock at a par value of \$1 per share. The authority of the Board includes, but is not limited to, the determination of the dividend rate, voting rights, conversion and redemption features and liquidation preferences. The Company has not designated or issued any preference stock as of December 31, 2015.

**Dividends**

In 2014, the Board reinstated the Company's quarterly cash dividend. In the aggregate, the Company declared and paid dividends totaling \$15.6 million and \$5.6 million during 2015 and 2014, respectively.

On February 9, 2016, the Board declared a quarterly cash dividend of \$0.07 per common share payable on March 17, 2016 to holders of record at the close of business on March 1, 2016.

**Stock Repurchase Program**

In April 2014, the Board authorized a stock repurchase program (the "April 2014 program") of up to \$15.0 million of the Company's common stock. The April 2014 program was intended primarily to facilitate a reduction in the investment in Company stock within the Company's U.S. defined benefit pension plan portfolio and to reduce dilution

resulting from issuances of stock under the Company's employee equity incentive programs. During the year ended December 31, 2014, the Company repurchased 696,263 shares for a total of \$10.3 million under the April 2014 program.

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In November 2014, the Board authorized an additional stock repurchase program (the “November 2014 program”) of up to \$75.0 million of the Company’s common stock. The November 2014 program is intended primarily to facilitate opportunistic purchases of Company stock as a means to provide cash returns to stockholders, enhance stockholder returns and manage the Company’s capital structure.

During the year ended December 31, 2015, the Company repurchased 724,792 shares for a total of \$10.6 million under the authorized stock repurchase programs. During the second quarter of 2015, cumulative stock repurchases under the April 2014 program reached the maximum authorized level of \$15.0 million. No additional stock repurchases will be made under that program.

Under its stock repurchase programs, the Company is authorized to repurchase, from time to time, shares of its outstanding common stock in the open market or through privately negotiated transactions. Stock repurchases by the Company are subject to market conditions and other factors and may be commenced, suspended or discontinued at any time.

**Accumulated Other Comprehensive Loss**

The following tables summarize the changes in each component of Accumulated other comprehensive loss, net of tax:

(in millions) <sup>(a)</sup>	Actuarial Losses	Foreign Currency Translation	Unrealized Gain (Loss) on Derivatives	Total
Balance at January 1, 2015	\$(79.8)	) \$0.2	\$0.1	\$(79.5 )
Other comprehensive loss before reclassifications	(0.6	) (13.5	) —	(14.1 )
Amounts reclassified from accumulated other comprehensive loss	4.8	—	—	4.8
Net current-period other comprehensive income (loss)	4.2	(13.5	) —	(9.3 )
Balance at December 31, 2015	\$(75.6	) \$(13.3	) \$0.1	\$(88.8 )
(in millions) <sup>(a)</sup>	Actuarial Losses	Foreign Currency Translation	Unrealized Gain (Loss) on Derivatives	Total
Balance at January 1, 2014	\$(58.1	) \$16.0	\$0.2	\$(41.9 )
Other comprehensive loss before reclassifications	(24.6	) (15.8	) (0.1	) (40.5 )
Amounts reclassified from accumulated other comprehensive loss	2.9	—	—	2.9
Net current-period other comprehensive loss	(21.7	) (15.8	) (0.1	) (37.6 )
Balance at December 31, 2014	\$(79.8	) \$0.2	\$0.1	\$(79.5 )

(a) Amounts in parenthesis indicate debits.

Following the sale of Bronto, the Company expects to recognize the foreign currency translation amount attributable to the Fire Rescue Group and include it in the calculation of the associated gain on disposal in the first quarter of 2016. At December 31, 2015, a foreign currency translation loss of \$7.4 million was attributable to the Fire Rescue Group, and was included within Accumulated other comprehensive loss.

The following table summarizes the amount of actuarial losses reclassified from Accumulated other comprehensive loss, net of tax, and the affected line item in the Consolidated Statements of Operations:

Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other Comprehensive Loss 2015	2014	Affected Line Item in Consolidated Statements of Operations
	(in millions) <sup>(a)</sup>		
Amortization of actuarial losses of defined benefit pension plans	\$(7.5	) \$(5.5	) (b)
Amortization of actuarial gains of retiree medical plans	0.1	0.2	SEG&A expenses
Total before tax	(7.4	) (5.3	)

Income tax benefit	2.6	2.4	Income tax (expense) benefit
Total reclassifications for the period, net of tax	\$(4.8	) \$(2.9	)

(a) Amount in parenthesis indicate debits to profit/loss.

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(b) The actuarial loss components of Accumulated other comprehensive loss are included in the computation of net periodic pension cost for the period, as disclosed in Note 7 – Pensions.

NOTE 13 — SEGMENT INFORMATION

The Company has two operating segments as defined under ASC Topic 280, Segment Reporting (“ASC 280”). The Company’s reportable segments are consistent with its operating segments. Business units are organized under each segment because they share certain characteristics, such as technology, marketing, distribution and product application, which create long-term synergies. The principal activities of the Company’s operating segments are as follows:

**Environmental Solutions** — Our Environmental Solutions Group is a leading manufacturer and supplier of a full range of street sweeper vehicles, sewer cleaner and vacuum loader trucks, hydro-excavation trucks and high-performance waterblasting equipment. Products are sold to both municipal and industrial customers under the Elgin®, Vactor®, Guzzler® and Jetstream™ brand names. The Group manufactures vehicles and equipment in the U.S.

**Safety and Security Systems** — Our Safety and Security Systems Group is a leading manufacturer and supplier of comprehensive systems and products that law enforcement, fire rescue, emergency medical services, campuses, military facilities and industrial sites use to protect people and property. Offerings include systems for campus and community alerting, emergency vehicles, first responder interoperable communications and industrial communications, as well as command and municipal networked security. Specific products include vehicle lightbars and sirens, public warning sirens, general alarm systems, public address systems and public safety software. Products are sold under the Federal Signal™, Federal Signal VAMA™ and Victor™ brand names. The Group operates manufacturing facilities in the U.S., Europe and South Africa.

Corporate contains those items that are not included in our operating segments.

Net sales by operating segment reflect sales of products and services to external customers, as reported in the Company’s Consolidated Statements of Operations. Intersegment sales are insignificant. The Company evaluates performance based on operating income of the respective segment. Operating income includes all revenues, costs and expenses directly related to the segment involved. In determining operating segment income, neither corporate nor interest expenses are included. Operating segment depreciation expense, identifiable assets and capital expenditures relate to those assets that are utilized by the respective operating segment. Corporate assets consist principally of cash and cash equivalents, deferred tax assets and fixed assets. The accounting policies of each operating segment are the same as those described in Note 1 – Summary of Significant Accounting Policies.

Revenues attributed to customers located outside of the U.S. aggregated \$191.2 million in 2015, \$198.5 million in 2014 and \$175.8 million in 2013, of which sales exported from the U.S. aggregated \$146.2 million, \$152.5 million and \$131.1 million, respectively.



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The following tables summarize the Company's continuing operations by segment, including net sales, operating income, depreciation and amortization, total assets and capital expenditures:

(in millions)	2015	2014	2013
Net sales:			
Environmental Solutions	\$534.1	\$536.6	\$474.0
Safety and Security Systems	233.9	242.5	238.9
Total net sales	\$768.0	\$779.1	\$712.9
Operating income:			
Environmental Solutions	\$96.9	\$81.9	\$58.2
Safety and Security Systems	32.3	32.1	26.1
Corporate and eliminations	(26.0)	(25.3)	(22.7)
Total operating income	103.2	88.7	61.6
Interest expense	2.3	3.6	8.9
Debt settlement charges	—	—	8.7
Other expense, net	1.0	1.7	0.1
Income before income taxes	\$99.9	\$83.4	\$43.9
(in millions)	2015	2014	2013
Depreciation and amortization:			
Environmental Solutions	\$7.3	\$6.8	\$6.1
Safety and Security Systems	4.8	4.5	4.2
Corporate	0.2	0.2	0.7
Total depreciation and amortization	\$12.3	\$11.5	\$11.0
(in millions)	2015	2014	2013
Total assets:			
Environmental Solutions	\$250.6	\$254.2	\$236.0
Safety and Security Systems	209.6	208.3	213.4
Corporate and eliminations	99.2	69.0	73.6
Total assets of continuing operations	559.4	531.5	523.0
Total assets of discontinued operations	107.1	127.2	121.8
Total assets	\$666.5	\$658.7	\$644.8
(in millions)	2015	2014	2013
Capital expenditures:			
Environmental Solutions	\$4.5	\$6.2	\$4.5
Safety and Security Systems	3.9	6.3	5.4
Corporate	1.2	1.2	1.7
Total capital expenditures	\$9.6	\$13.7	\$11.6
The following table summarizes net sales by geographic region based on the location of the end customer:			
(in millions)	2015	2014	2013
Net sales:			
U.S.	\$576.8	\$580.6	\$537.1
Europe/Other	115.3	131.4	119.3
Canada	75.9	67.1	56.5
Total net sales	\$768.0	\$779.1	\$712.9

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The following table summarizes long-lived assets (excluding deferred tax and intangible assets) by geographic region based on the location of the Company's subsidiaries:

(in millions)	2015	2014	2013
Long-lived assets (excluding deferred tax and intangible assets):			
U.S.	\$53.3	\$53.5	\$46.1
Europe	2.6	2.5	5.2
Other	0.3	0.4	0.4
Total long-lived assets	\$56.2	\$56.4	\$51.7

**NOTE 14 — DISCONTINUED OPERATIONS**

The Company recorded a net loss from discontinued operations and disposal of \$2.3 million in the year ended December 31, 2015. The net loss was primarily driven by tax expense associated with recording a net deferred tax liability of \$6.3 million, partially offset by net income generated by the Fire Rescue Group, which was discontinued in 2015, and the receipt of funds from the escrow associated with the 2012 sale of the Company's former Federal Signal Technologies Group ("FSTech").

In each of the years ended December 31, 2014 and 2013, the Company recorded net gains from discontinued operations and disposal of \$4.0 million and \$7.5 million, respectively. The net gains in each period were primarily driven by net income generated by the Fire Rescue Group, as well as adjustments of estimated product liability obligations of previously discontinued businesses, resulting from updated actuarial valuations. The activity of the Company's discontinued operations in each of the years ended December 31, 2015, 2014 and 2013 is described further below:

**FSTech**

In connection with the sale of FSTech, \$22.0 million was placed into escrow as security for indemnification obligations provided by the Company pursuant to the sale agreement. A significant portion of the escrow identified for general indemnification obligations was held for a period of 18 months following the sale date with the remaining general escrow funds to be held for 36 months following the sale date.

In 2014, the Company received \$7.4 million from the escrow identified for general indemnification obligations. In the third quarter of 2015, the Company received the remaining general escrow funds of \$4.0 million and recorded this income as a component of (Loss) gain from discontinued operations and disposal, net of tax expense of \$1.5 million within its Consolidated Statement of Operations for the year ended December 31, 2015. There are no amounts remaining in escrow as of December 31, 2015.

**Fire Rescue Group**

On December 11, 2015, the Company announced that it has signed a definitive agreement to sell Bronto to Morita for €80.0 million in cash (approximately \$87 million), subject to certain post-closing working capital and net debt adjustments. Prior to sale, Bronto was the only remaining operation in the Company's Fire Rescue Group, which was previously identified as an operating segment of the Company as defined under ASC 280. Upon completion of the transaction, the Company will no longer operate the Fire Rescue Group, which the Company considers a significant strategic shift in the Company's operations. In accordance with ASC Topic 360, Impairment and Disposal of Long-Lived Assets, the Company met the held for sale criteria as of December 31, 2015 and the Fire Rescue Group is being presented as a discontinued operation in the Company's consolidated financial statements.

On January 29, 2016, the Company completed the sale, initially receiving proceeds of €76 million in cash (approximately \$83 million), with the remaining purchase price expected to be paid, in connection with the payment of the working capital and net debt adjustments, by the end of the second quarter of 2016.

Under the terms of the sale, the Company and Morita agreed that the Company will remain in control of negotiations and proceedings relating to the appeal of the ruling issued in the Latvian commercial dispute, discussed further in Note 9 – Legal Proceedings, and also fund the legal costs associated therewith. The Company also agreed to compensate Morita for half of any liability resulting from a final and non-appealable decision of a court of competent jurisdiction, less half of legal fees incurred by the Company between the date of sale and the date of receiving such

decision.

On December 16, 2015, the Company entered into a foreign currency forward contract to mitigate its foreign exchange exposure related to the receipt of the euro-denominated sales proceeds. The derivative is being marked-to-market on a quarterly basis, with related gains or losses reported in the Company's Consolidated Statement of Operations. The forward contract had a

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notional contract value of €76.0 million and a fair value of \$0.6 million at December 31, 2015. An asset of \$0.6 million has been included as a component of Prepaid expenses and other current assets on the Consolidated Balance Sheet as of December 31, 2015, with a corresponding gain recorded as a component of Other expense, net in the Consolidated Statement of Operations for the year ended December 31, 2015. The fair value of the forward contract was determined using readily available pricing sources for comparable instruments (Level 2 within the fair value hierarchy described within Note 1 – Summary of Significant Accounting Policies).

In accordance with ASC 740, a tax liability should be recognized for the excess of the financial reporting basis over the tax basis (or the tax benefit when the tax basis exceeds the financial reporting basis) of an investment in a subsidiary (outside basis difference) when it is apparent that the temporary differences will reverse in the foreseeable future. In connection with presenting the Fire Rescue Group as a discontinued operation as of December 31, 2015, the Company was required to re-evaluate its position related to the recognition of a deferred tax asset or liability for the outside basis differences of the Bronto entities being sold to Morita. In prior years, deferred taxes for such outside basis differences had not been recognized, either because of the Company's assertion of permanent reinvestment, or because recognition was not required applying one of the exceptions provided for in ASC 740. Due to the pending sale, these exceptions no longer applied at December 31, 2015, as the outside basis differences were expected to reverse in the foreseeable future. As a result, a net deferred tax liability of \$6.3 million was recorded as a component of long-term liabilities of discontinued operations as of December 31, 2015.

After recognition of the accumulated foreign currency translation loss attributable to the Fire Rescue Group, as described in Note 12 – Stockholders' Equity, the actuarial losses described in Note 7 – Pensions, as well as applicable income tax expense, the Company anticipates recognizing a modest net gain on disposal of the Fire Rescue Group upon closing the transaction in the first quarter of 2016.

The following table presents the operating results of the Company's discontinued Fire Rescue Group for each of the three years in the period ended December 31, 2015:

(in millions)	2015	2014	2013
Net sales	\$100.0	\$139.4	\$138.4
Cost of sales	80.8	114.8	109.3
Gross profit	19.2	24.6	29.1
Selling, engineering, general and administrative expenses	17.1	20.7	20.1
Restructuring	0.8	—	—
Operating income	1.3	3.9	9.0
Interest expense (income), net	—	0.2	(0.1)
Other expense (income), net	(0.2)	(0.2)	—
Income before income taxes	1.5	3.9	9.1
Income tax expense	0.3	0.6	1.4
Net income from operations	\$1.2	\$3.3	\$7.7

Assets and liabilities of discontinued operations

The following table presents the assets and liabilities of the Company's discontinued operations, which include the Fire Rescue Group, as well as other operations discontinued in prior periods, as of December 31, 2015 and 2014:

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(in millions)	2015			2014		
	Fire Rescue	Other	Total	Fire Rescue	Other	Total
Cash and cash equivalents	\$5.0	\$—	\$5.0	\$6.3	\$—	\$6.3
Accounts receivable, net	15.5	—	15.5	34.0	—	34.0
Inventories	40.4	—	40.4	33.4	—	33.4
Prepaid expenses	2.7	—	2.7	2.4	—	2.4
Other current assets	0.2	—	0.2	—	0.1	0.1
Current assets of discontinued operations	\$63.8	\$—	\$63.8	\$76.1	\$0.1	\$76.2
Properties and equipment, net	\$13.4	\$—	\$13.4	\$16.8	\$—	\$16.8
Goodwill	28.3	—	28.3	31.1	—	31.1
Deferred tax assets	—	1.6	1.6	—	3.1	3.1
Long-term assets of discontinued operations	\$41.7	\$1.6	\$43.3	\$47.9	\$3.1	\$51.0
Accounts payable	\$7.3	\$—	\$7.3	\$9.0	\$—	\$9.0
Customer deposits	10.6	—	10.6	7.1	—	7.1
Accrued liabilities:						
Compensation and withholding taxes	4.3	—	4.3	5.6	—	5.6
Other current liabilities	4.0	2.4	6.4	9.5	1.7	11.2
Current liabilities of discontinued operations	\$26.2	\$2.4	\$28.6	\$31.2	\$1.7	\$32.9
Long-term pension and other post-retirement benefit liabilities	\$0.7	\$—	\$0.7	\$0.9	\$—	\$0.9
Other long-term liabilities	5.5	9.1	14.6	4.9	5.0	9.9
Long-term liabilities of discontinued operations	\$6.2	\$9.1	\$15.3	\$5.8	\$5.0	\$10.8

The Company retains certain liabilities for other operations discontinued in prior periods, primarily for environmental remediation and product liability. Included in liabilities of discontinued operations at December 31, 2015 and 2014 is \$0.9 million and \$1.3 million, respectively, related to environmental remediation at the Pearland, Texas facility, and \$2.3 million and \$3.0 million, respectively, relating to estimated product liability obligations of the discontinued North American refuse truck body business.

Long-term assets of discontinued operations at December 31, 2015 and 2014 include gross deferred tax assets of \$3.5 million and \$4.2 million, respectively, offset by a full valuation allowance. These assets primarily relate to Canadian net operating loss carryforwards that were largely generated by the discontinued North American refuse truck body business. These net operating loss carryforwards begin to expire in 2026. As it is currently not considered more likely than not that such deferred tax assets will be realized, a full valuation allowance has been recorded, such that the net deferred tax assets included assets of discontinued operations is zero at December 31, 2015 and 2014. However, tax planning strategies or acquisitions may result in these assets being realized as part of the Company's continuing operations in future periods.

**NOTE 15 — NEW ACCOUNTING PRONOUNCEMENTS**

In April 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-08, Presentation of Financial Statements (Topic 205) and Property, Plant, and Equipment (Topic 360), Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity. This update revises the required criteria for reporting disposals as discontinued operations, whereby such disposals must represent strategic shifts that had (or will have) a major

effect on an entity's operations and financial results. The guidance also requires additional disclosures about discontinued operations, including expanded disclosure of any significant ongoing involvement. The new requirements are effective prospectively for all disposals that occur within fiscal years beginning on or after December 15, 2014, and for interim periods within those fiscal years. The Company adopted this guidance on January 1, 2015 and applied it in concluding that the Fire Rescue Group should be presented as a discontinued operation in the 2015 consolidated financial statements. See Note 14 – Discontinued Operations for further discussion. In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition. This ASU is based on the principle that revenue is

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recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The ASU also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. The FASB decided to allow either a “full retrospective” adoption, in which the standard is applied to all periods presented in the financial statements, or a “modified retrospective” adoption, in which the guidance is applied retrospectively only to the most current period presented in the financial statements, with the cumulative effect of initially applying the new standard being recognized as an adjustment to the opening balance of retained earnings. As originally proposed, this guidance was effective for annual reporting periods beginning on or after December 15, 2016, including interim periods within that reporting period, and early adoption was not permitted. In July 2015, the FASB voted to approve a one-year deferral of the effective date, to annual reporting periods beginning on or after December 15, 2017, including interim periods within that reporting period. The final ASU 2015-14 also allows companies to adopt the guidance early, but no earlier than the original effective date. The Company is currently evaluating the impact of the adoption of this guidance on its consolidated financial statements. In April 2015, the FASB issued ASU No. 2015-03, Interest – Imputation of Interest (Subtopic 835-30), Simplifying the Presentation of Debt Issuance Costs, which requires that debt issuance costs be presented in the balance sheets as a direct deduction from the carrying amount of the related debt liability. The new requirement is effective for fiscal years beginning on or after December 15, 2015, and for interim periods within those fiscal years. Retrospective presentation is required for all comparable periods presented. The Company does not believe that the adoption of this guidance will have a material impact on its consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-15, Interest – Imputation of Interest (Subtopic 835-30), Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements, which presents the SEC staff’s opinion, in response to ASU No. 2015-03, that debt issuance costs associated with line-of-credit arrangements may be deferred, presented as an asset, and subsequently amortized ratably over the respective term, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The effective date of this guidance, and the expected impact upon adoption, is consistent with that discussed above with respect to ASU No. 2015-03.

In November 2015, the FASB issued ASU No. 2015-17, Balance Sheet Classification of Deferred Taxes, requiring that deferred tax assets and liabilities be classified as noncurrent in a classified statement of financial position. This new guidance is effective for annual reporting periods beginning on or after December 15, 2016, including interim periods within that reporting period. Early adoption is permitted. The Company early adopted the ASU for the year ended December 31, 2015 on a retrospective basis. See Note 6 – Income Taxes for more detail.

No other new accounting pronouncements issued or effective during 2015 have had or are expected to have a material impact on the Company’s results of operations, financial position or cash flow.

**NOTE 16 — SELECTED QUARTERLY DATA (UNAUDITED)**

The Company reports its interim quarterly periods on a 13-week basis ending on a Saturday with the fiscal year ending on December 31. The effects of this practice exist only within a reporting year. For ease of presentation, the Company uses “March 31,” “June 30,” “September 30” and “December 31” to refer to its results of operations for the quarterly periods then ended. In 2015, the Company’s interim quarterly periods ended March 28, June 27, September 26 and December 31. In 2014, the Company’s interim quarterly periods ended March 29, June 28, September 27 and December 31.

The following table summarizes the quarterly results of operations, including earnings per share:

	2015			
(in millions, except per share data)	March 31	June 30 <sup>(a)</sup>	September 30	December 31 <sup>(b)</sup>
Net sales	\$196.5	\$205.4	\$179.7	\$186.4
Gross profit	54.9	60.7	54.7	55.3
Income from continuing operations	14.4	18.2	15.8	17.4

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Gain (loss) from discontinued operations and disposal, net	0.5	0.1	3.0	(5.9	)
Net income	14.9	18.3	18.8	11.5	
Diluted earnings per share:					
Earnings from continuing operations	\$0.22	\$0.29	\$0.25	\$ 0.27	
Earnings (loss) from discontinued operations	0.01	0.00	0.05	(0.09	)
Net earnings per share	\$0.23	\$0.29	\$0.30	\$ 0.18	

(a) Income from continuing operations includes restructuring charges of \$0.4 million.

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Income from continuing operations includes a \$1.4 million net benefit from special tax items, comprised of a \$4.2 million net tax benefit associated with tax planning strategies, offset by a \$2.4 million adjustment of deferred tax (b) assets and \$0.4 million of expense associated with a change in the enacted tax rate in the U.K. Gain (loss) from discontinued operations and disposal, net includes tax expense of \$6.3 million associated with recognizing a net deferred tax liability for the outside basis differences of entities being sold as part of the sale of Bronto.

	2014			
(in millions, except per share data)	March 31	June 30	September 30	December 31 <sup>(a)</sup>
Net sales	\$175.7	\$200.5	\$193.8	\$209.1
Gross profit	42.6	54.4	54.1	57.6
Income from continuing operations	7.9	16.9	15.0	19.9
(Loss) gain from discontinued operations and disposal, net	(0.5	) 0.2	0.4	3.9
Net income	7.4	17.1	15.4	23.8
Diluted earnings per share:				
Earnings from continuing operations	\$0.13	\$0.27	\$0.23	\$0.31
(Loss) earnings from discontinued operations	(0.01	) 0.00	0.01	0.06
Net earnings per share	\$0.12	\$0.27	\$0.24	\$0.37

(a) Income from continuing operations includes a tax benefit of \$3.5 million relating to the release of valuation allowance previously recorded against the Company's foreign deferred tax assets.

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NOTE 17 — SUBSEQUENT EVENTS

Acquisition of Westech Vac Systems Ltd.

On January 5, 2016, the Company completed the acquisition of 100% of the stock of Westech Vac Systems, Ltd. (“Westech”), a Canadian manufacturer of high-quality, rugged vacuum trucks, from Advance Engineered Products Ltd. for an initial purchase price of C\$8.0 million (approximately U.S. \$5.8 million), subject to certain working capital adjustments. At closing, the Company paid an additional C\$0.7 million (approximately U.S. \$0.5 million) as a preliminary working capital adjustment. Any additional working capital adjustment is expected to be finalized in the first quarter of 2016. The preliminary purchase price allocation has not been completed at this time, due to the proximity of the date of acquisition to the date of issuance of the consolidated financial statements. The Company expects that Westech will provide an efficient entry into a new line of product offerings and access to new markets. The post-acquisition operating results of Westech are expected to be included within the Environmental Solutions Group.

Execution of 2016 Credit Agreement

See Note 5 – Debt for discussion of the execution of the 2016 Credit Agreement on January 27, 2016.

Sale of Bronto

See Note 14 – Discontinued Operations for discussion of the completion of the sale of Bronto on January 29, 2016.

Execution of Definitive Agreement to Acquire Joe Johnson Equipment (“JJE”)

On February 29, 2016, the Company announced the signing of a definitive agreement to acquire substantially all of the assets and operations of JJE, a Canadian-based distributor of maintenance equipment for municipal and industrial markets, for initial consideration of C\$108.0 million (approximately U.S. \$79 million), subject to certain post-closing adjustments. In addition, there is a deferred payment of C\$8.0 million and a contingent earn-out payment of up to C\$10.0 million. The earn-out payment is contingent upon the achievement of certain financial targets and objectives. The Company anticipates that the transaction will close by the end of the second quarter of 2016.

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

None.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures

The Company carried out an evaluation, under the supervision and with the participation of its management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company’s “disclosure controls and procedures” (as defined in the Exchange Act Rule 13a-15(e)) as of December 31, 2015.

Based on that evaluation, the Company’s Chief Executive Officer and Chief Financial Officer concluded that the Company’s disclosure controls and procedures were effective as of December 31, 2015.

(b) Management’s Annual Report on Internal Control over Financial Reporting and Attestation Report of the Registered Public Accounting Firm

The Company’s management is responsible for establishing and maintaining an adequate system of internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Management conducted an assessment of the Company’s internal control over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control — Integrated Framework (2013). Based on the assessment, management concluded that, as of December 31, 2015, the Company’s internal control over financial reporting is effective.

Deloitte & Touche LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this Annual Report on Form 10-K and, as part of their audit, has issued its report, included herein, on the effectiveness of the Company’s internal control over financial reporting. See “Report of Independent Registered Public Accounting Firm” under Item 8 of Part II of this Form 10-K.



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(c) Changes in Internal Control over Financial Reporting

From time to time, the Company may make changes aimed at enhancing the effectiveness of the controls and to ensure that the systems evolve with the business. There were no changes in the Company's internal control over financial reporting that occurred during the Company's most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information.

On February 29, 2016, the Company issued a press release announcing its financial results for the three months and year ended December 31, 2015. In addition, the presentation slides for the 2015 fourth quarter earnings call were posted on the Company's website at that time. The full text of the press release and earnings presentation is included as Exhibits 99.1 and 99.2, respectively, to this Form 10-K.

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PART III

Item 10. Directors, Executive Officers and Corporate Governance.

A list of our executive officers and biographical information appears in Item 1 of Part I of this Form 10-K.

Information regarding directors and nominees for directors is set forth in the Company's definitive proxy statement for its 2016 Annual Meeting of Stockholders and is incorporated herein by reference.

Information regarding Compliance with Section 16(a) of the Exchange Act is set forth in the Company's 2016 definitive proxy statement under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" and is incorporated herein by reference. Information regarding the (i) Audit Committee, (ii) Nominating and Governance Committee and (iii) Compensation and Benefits Committee of the Company's Board of Directors is set forth in the Company's 2016 definitive proxy statement under the caption "Information Concerning the Board of Directors" and is incorporated herein by reference.

The Company has adopted a code of ethics that applies to its principal executive officer, principal financial officer and principal accounting officer. This code of ethics and the Company's corporate governance policies are posted on the Company's website at [www.federsignal.com](http://www.federsignal.com). The Company intends to satisfy its disclosure requirements regarding amendments to or waivers from its code of ethics by posting such information on this website. The charters of the (i) Audit Committee, (ii) Nominating and Governance Committee and (iii) Compensation and Benefits Committee of the Company's Board of Directors are available on the Company's website and are also available in print free of charge.

Item 11. Executive Compensation.

The information contained under the captions "Information Concerning the Board of Directors," "Compensation Committee Interlocks and Insider Participation," "Compensation Discussion and Analysis," "Compensation and Benefits Committee Report" and "Executive Compensation" of the Company's 2016 definitive proxy statement is incorporated herein by reference.

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

Information regarding security ownership of (i) certain beneficial owners, (ii) all directors and nominees, (iii) named executive officers and (iv) directors and executive officers as a group is set forth in the Company's 2016 definitive proxy statement under the caption "Ownership of Our Common Stock" and is incorporated herein by reference.

Information regarding our equity compensation plans is set forth in the Company's 2016 definitive proxy statement under the caption "Equity Compensation Plan Information" and is incorporated herein by reference.

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

Information regarding certain relationships is hereby incorporated by reference from the Company's 2016 definitive proxy statement under the headings "Information Concerning the Board of Directors" and "Certain Relationships and Related Party Transactions."

Item 14. Principal Accountant Fees and Services.

Information regarding principal accountant fees and services is incorporated by reference from the Company's 2016 definitive proxy statement under the heading "Accounting Fees."

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PART IV

Item 15. Exhibits, Financial Statement Schedules.

1. Financial Statements

The following consolidated financial statements of the Company and the “Report of the Independent Registered Public Accounting Firm” contained under Item 8 of Part II this Form 10-K are incorporated herein by reference:

- (a) Consolidated Statements of Operations for the Years Ended December 31, 2015, 2014 and 2013;
- (b) Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2015, 2014 and 2013;
- (c) Consolidated Balance Sheets as of December 31, 2015 and 2014;
- (d) Consolidated Statements of Cash Flows for the Years Ended December 31, 2015, 2014 and 2013;
- (e) Consolidated Statements of Stockholders’ Equity for the Years Ended December 31, 2015, 2014 and 2013; and
- (f) Notes to Consolidated Financial Statements.

2. Financial Statement Schedules

Schedule II — Valuation and Qualifying Accounts of the Company for the three years ended December 31, 2015 is filed as a part of this Annual Report in response to Item 15(a)(2):

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore, have been omitted.

3. Exhibits

See Exhibit Index.

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SCHEDULE II  
 FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES  
 Valuation and Qualifying Accounts  
 For the years ended December 31, 2015, 2014 and 2013

(in millions)	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Deductions Accounts Written off Net of Recoveries	Balance at End of Year
Allowance for doubtful accounts:				
Year Ended December 31, 2015	\$0.7	\$0.6	\$(0.5 )	\$0.8
Year Ended December 31, 2014	1.4	0.3	(1.0 )	0.7
Year Ended December 31, 2013	1.3	0.2	(0.1 )	1.4
Income tax valuation allowances:				
Year Ended December 31, 2015	\$3.8	\$2.1	\$—	\$5.9
Year Ended December 31, 2014	9.3	—	(5.5 )	3.8
Year Ended December 31, 2013	131.2	2.5	(124.4 )	9.3

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Signatures

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

FEDERAL SIGNAL CORPORATION

By: /s/ Jennifer L. Sherman  
Jennifer L. Sherman  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: February 29, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Company and in the capacities indicated, as of February 29, 2016.

/s/ Jennifer L. Sherman Jennifer L. Sherman	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ Brian S. Cooper Brian S. Cooper	Senior Vice President, Chief Financial Officer (Principal Financial Officer)
/s/ Ian A. Hudson Ian A. Hudson	Vice President, Corporate Controller (Principal Accounting Officer)
/s/ Dennis J. Martin Dennis J. Martin	Executive Chairman and Director
/s/ James E. Goodwin James E. Goodwin	Director
/s/ Paul W. Jones Paul W. Jones	Director
/s/ Bonnie C. Lind Bonnie C. Lind	Director
/s/ Richard R. Mudge Richard R. Mudge	Director
/s/ William F. Owens William F. Owens	Director
/s/ Brenda L. Reichelderfer Brenda L. Reichelderfer	Director
/s/ John L. Workman John L. Workman	Director





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EXHIBIT INDEX

The following exhibits, other than those incorporated by reference, have been included in the Company's Form 10-K filed with the Securities and Exchange Commission.

- 3. a. Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed April 30, 2010.
- b. Amended and Restated By-Laws of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed February 9, 2016.
- 10. a. \* Supplemental Pension Plan. Incorporated by reference to Exhibit 10.C to the Company's Form 10-K for the year ended December 31, 1995.
- b. \* Executive Disability, Survivor and Retirement Plan. Incorporated by reference to Exhibit 10.D to the Company's Form 10-K for the year ended December 31, 1995.
- c. \* Savings Restoration Plan, as amended and restated January 1, 2007. Incorporated by reference to Exhibit 10.FF to the Company's Form 10-K for the year ended December 31, 2008.
- d. \* First Amendment of the Federal Signal Corporation Savings Restoration Plan. Incorporated by reference to Exhibit 10.MM to the Company's Form 10-K for the year ended December 31, 2008.
- e. \* Second Amendment to Federal Signal Corporation Savings Restoration Plan. Incorporated by reference to Exhibit 10.NN to the Company's Form 10-K for the year ended December 31, 2008.
- f. \* Third Amendment to Federal Signal Corporation Savings Restoration Plan. Incorporated by reference to Exhibit 10.OO to the Company's Form 10-K for the year ended December 31, 2008.
- g. \* Executive General Severance Plan, as amended and restated August 2012. Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended June 30, 2012.
- h. \* Form of 2008 Executive Change-In-Control Severance Agreement (Tier 1) with certain executive officers. Incorporated by reference to Exhibit 10.HH to the Company's Form 10-K for the year ended December 31, 2008.
- i. \* Form of 2008 Executive Change-In-Control Severance Agreement (Tier 2) with certain executive officers. Incorporated by reference to Exhibit 10.II to the Company's Form 10-K for the year ended December 31, 2008.
- j. \* Form of 2010 Executive Change-In-Control Severance Agreement with certain executive officers (Tier 1). Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended March 31, 2010.
- k. \* Form of 2010 Executive Change-In-Control Severance Agreement with certain executive officers (Tier 2). Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended March 31, 2010.
- l. \* Federal Signal Corporation Executive Incentive Performance Plan, as amended and restated. Incorporated by reference to Appendix C to the Company's Definitive Proxy Statement filed on Schedule 14A filed March 25, 2010.
- m. \* Short Term Incentive Bonus Plan. Incorporated by reference to Exhibit 10.hh to the Company's Form 10-K for the year ended December 31, 2012.
- n. Credit Agreement dated as of March 13, 2013, by and among the Company, as Borrower, the Lenders referred to therein, as Lenders, and Wells Fargo Bank, National Association, as Administrative Agent, Swingline Lender and Issuing Lender, General Electric Capital Corporation, as Syndication Agent, Wells Fargo Securities, LLC, and GE Capital Markets, Inc., as Joint Lead Arrangers and Joint Book Managers. Incorporated by reference to Exhibit 10.ii to the Company's Form 10-K for the year ended December 31, 2012.
- o. Amendment No. 2, dated April 18, 2014, to the Credit Agreement dated as of March 13, 2013, by and among the Company, as Borrower, the Lenders referred to therein, as Lenders, and Wells Fargo Bank, National Association, as Administrative Agent, Swingline Lender and Issuing Lender,

General Electric Capital Corporation, as Syndication Agent, Wells Fargo Securities, LLC, and GE Capital Markets, Inc., as Joint Lead Arrangers and Joint Book Managers. Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended March 31, 2014.

p. \* Federal Signal Corporation 2015 Executive Incentive Compensation Plan. Incorporated by reference to Appendix B to the Company's Definitive Proxy Statement filed on Schedule 14A filed March 18, 2015.

q. \* Form of Equity Award Agreements. Incorporated by reference to Exhibits 10.1, 10.2, 10.3 and 10.4 to the Company's Form 10-Q for the quarter ended March 31, 2015 and Exhibits 10.1 and 10.2 to the Company's Form 10-Q for the quarter ended June 30, 2015.

r. \* Federal Signal Corporation Retirement Savings Plan, as amended and restated effective as of January 1, 2015.

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s. *	Form of Director Distribution Election.
t.	Share Sale and Purchase Agreement dated as of December 11, 2015, by and among Morita Holdings Corporation, the Company and certain of its subsidiaries identified on the signature pages thereto. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated December 11, 2015.
u. *	Separation Agreement and General Release, effective January 7, 2016, by and between Bryan L. Boettger and the Company. Incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K dated January 11, 2016.
v.	Amended and Restated Credit Agreement, dated as of January 27, 2016, by and among the Company and certain of its foreign subsidiaries, as Borrowers, the Lenders referred to therein, as Lenders, Wells Fargo Bank, National Association, as Administrative Agent, Swingline Lender and Issuing Lender, JPMorgan Chase Bank, N.A., as Syndication Agent, KeyBank National Association, as Documentation Agent, and Wells Fargo Securities, LLC and J.P. Morgan Securities LLC, as Joint Lead Arrangers and Joint Bookrunners. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed February 2, 2016.
14.	Code of Ethics for Chief Executive Officer and Senior Financial Officers, as amended. Incorporated by reference to Exhibit 14 to the Company's Form 10-K for the year ended December 31, 2003.
21.	Subsidiaries of the Registrant.
23.	Consent of Independent Registered Public Accounting Firm.
31.1	CEO Certification under Section 302 of the Sarbanes-Oxley Act.
31.2	CFO Certification under Section 302 of the Sarbanes-Oxley Act.
32.1	CEO Certification of Periodic Report under Section 906 of the Sarbanes-Oxley Act.
32.2	CFO Certification of Periodic Report under Section 906 of the Sarbanes-Oxley Act.
99.1	Fourth Quarter Financial Results Press Release dated February 29, 2016.
99.2	Fourth Quarter Earnings Call Presentation Slides.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Label Linkbase Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.
*	Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(a)(3) of Form 10-K.