



March 22, 2017

To Our Fellow Shareholders:

Acme United has just completed its 8<sup>th</sup> consecutive year of record performance. We had net sales of \$124.6 million in 2016, an increase of 13% from 2015. Our net income was \$5.9 million, an increase of 22%. Earnings per share was \$1.64, an increase of 26% over 2015.

Our team delivered excellent results throughout the year, and I am personally very proud of their work. We raised our guidance twice during 2016, and exceeded those forecasts each time.

The Westcott team grew our scissor and pencil sharpener business through new product introductions and market share gains. They introduced new ceramic box openers, and broadened distribution of non-stick cutting tools. They initiated a major effort to develop and commercialize a new category—glue guns, with non-stick and temperature sensing features. The response has been strong and we expect to begin shipping in the first quarter of 2017.

Our Camillus knife business gained market share with mass market distributors and specialty shops. We re-introduced the Western brand of knives, and had excellent success. We expanded the Cuda fishing product line to include carbon fiber nets and gaffs, and introduced new fresh water fishing tools. We grew the DMT diamond sharpener business, with new placement at hardware and sporting goods chains. We are in the midst of doubling production capacity at DMT, and hiring is underway.

The First Aid unit grew double digits with many new industrial customer conversions. The team won the first aid requirements for all the stores, warehouses, and offices of one of the largest retail chains in the U.S. We built our on-line first aid kit and refill sales. We consolidated the product line to reduce overlapping components from our Pac-Kit, Physicians Care, and First Aid Only brands, and reduced product costs. In September, the team introduced a phone app to record customer first aid usage and re-order components.

Our Canadian business expanded mass market distribution of our Westcott cutting tools. The team built the Camillus hunting knife customer base, and grew overall sales 4% in a weak economy.

In Europe, we increased revenues 9% from market share gains in the Westcott office product family. The team also successfully expanded the DMT customer base, and grew on-line sales. More importantly, it laid the ground work for strong growth in 2017.

We have been building our infrastructure to support significant growth. During 2016, we expanded our physical facilities. We built the management depth in new product development, marketing, forecasting and logistics. We broadened our investment in information technology, with new equipment and software to manage our growing on-line sales.

On February 1, 2017, we acquired Spill Magic which sells spill clean-up absorbents to major U.S. retailers for internal use to reduce slips from wet floors. We intend to integrate its customers and products into our first aid business, and to use its components in spill clean-up kits and blood borne pathogen kits for the safety market.

We are entering 2017 with confidence, and we are focused on continuing to deliver outstanding results for our shareholders.

Thank you for your support.

Sincerely,

A handwritten signature in black ink that reads 'Walter C. Johnsen'.

Walter C. Johnsen  
Chairman and CEO

A handwritten signature in black ink that reads 'Brian S. Olschan'.

Brian S. Olschan  
President and COO

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D. C. 20549**  
**FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF  
THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2016

OR

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

Commission file number 01-07698

**ACME UNITED CORPORATION**

*Exact name of registrant as specified in its charter*

**Connecticut**

(State or other jurisdiction of  
incorporation or organization)

**06-0236700**

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

**55 Walls Drive**

**Fairfield, Connecticut**

(Address of principal executive offices)

**06824**

(Zip Code)

Registrant's telephone number, including area code **(203) 254-6060**

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

| Title of each class                  | Name of each exchange on which registered |
|--------------------------------------|---|
| <b>\$2.50 par value Common Stock</b> | <b>NYSE MKT</b>                           |

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

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES  NO

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (sec. 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (sec. 229.405) 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 definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check one).

Large accelerated filer ( ) Accelerated filer ( ) Non-accelerated filer ( ) Smaller Reporting Company (✓)

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

The aggregate market value of the voting and non-voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter was \$53,187,468.

Registrant had 3,327,455 shares of its \$2.50 par value Common Stock outstanding as of March 3, 2017.

#### Documents Incorporated By Reference

(1) Certain portions of the Company's Proxy Statement for the Annual Meeting scheduled for April 24, 2017 are incorporated into the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, Part III.

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# Part I

## Item 1. Business

### Overview

Acme United Corporation, a Connecticut corporation (together, with its subsidiaries, the “Company”), is a leading worldwide supplier of innovative cutting, measuring, first aid and sharpening products to the school, home, office, hardware, sporting goods and industrial markets. The Company’s operations are in the United States, Canada, Europe (located in Germany) and Asia (located in Hong Kong and China). The operations in the United States, Canada and Europe are primarily involved in product development, marketing, sales, administrative, manufacturing and distribution activities. The operations in Asia consist of sourcing, product development, production planning, quality control and sales activities. Total net sales in 2016 were \$124.6 million. The Company was organized as a partnership in 1867 and incorporated in 1882 under the laws of the State of Connecticut.

The Company has grouped its operations into three reportable segments based on the Company’s geographical organization and structure: (1) United States (which includes its Asian operations); (2) Canada and (3) Europe. Net sales in 2016 for each of our segments were: United States (including direct import sales from Asia) – \$110.8 million, Canada – \$6.8 million, and Europe – \$6.9 million. Refer to Note 10 of the Notes to Consolidated Financial Statements for additional segment information.

The Company sources most of its products from suppliers located outside the United States, primarily in Asia. The Company assembles its first aid kits primarily at its facility in Vancouver, WA. The components for the first aid kits are primarily sourced from U.S. suppliers.

### Business Strategy

The Company’s business strategy includes the following key elements:

- a commitment to technological innovation achieved through consumer insight, creativity and speed to market;
- a broad selection of products in both brand and private label;
- prompt response;
- superior customer service; and
- value pricing.

### Acquisitions

On February 1, 2017 the Company announced that it had acquired the assets of Spill Magic, Inc., for \$7.2 million in cash. The Spill Magic products are leaders in absorbents that encapsulate spills into dry powders that can be safely disposed. Many large retail chains use its products to remove liquids from broken glass containers, oil and gas spills, bodily fluids, and solvents. Its easy-to-use and environmentally friendly products permanently absorb the spills, leaving the floors underneath dry and reducing injuries from falls. Spill Magic also sells spill clean-up kits and blood borne pathogen kits for the safety market.

On February 1, 2016, the Company acquired the principal assets of Vogel Capital, Inc., d/b/a Diamond Machining Technology (“DMT”) based in Marlborough, MA for \$7.0 million in cash. The DMT products are leaders in sharpening tools for knives, scissors, chisels, and other cutting tools. They complement the Company’s existing brands and products within the industrial, hardware, floral, food preparation and sporting goods markets.

## **Principal Products**

The Company markets and sells under three main categories – School, Home and Office (Westcott® brand), First Aid & Safety (First Aid Only®, PhysiciansCare® Pac-Kit® and Spill Magic® brands) and Hardware, Industrial and Sporting Goods (Clauss®, Camillus®, Cuda® and DMT® brands).

### **School, Home and Office**

#### **Westcott**

Westcott, with a history of quality dating back to 1872, provides innovative cutting and measuring products for the school, home and office. Principal products under the Westcott brand include scissors, rulers, pencil sharpeners, paper trimmers, lettering products and math tools. It is one of the leading scissor and ruler brands in North America. The iPoint pencil sharpener, introduced in 2008, and its successor, the iPoint Evolution, have won GOOD DESIGN awards from the Chicago Athenaeum, Museum of Architecture and Design.

Many of the Westcott branded cutting products contain patented titanium bonding and proprietary non-stick coatings, making the blades more than three times harder than stainless steel as well as reducing friction and corrosion. Significant product introductions in 2015 included a Carbo titanium line of scissors which are 8x harder than steel allowing the blades to stay sharper longer. Westcott also launched a line of safety ceramic utility cutters for use in home and office. Significant product introductions in 2016 included our new line of ergonomic scissors for children designed in tandem with the US Ergonomics Institute.

### **Hardware, Industrial and Sporting Goods**

#### **Clauss**

Clauss, with its roots dating back to 1877, offers a line of quality cutting tools for professionals in the hardware & industrial, lawn & garden, food processing, sewing and housewares channels. Many of the Clauss products are enhanced with the Company's patented titanium and proprietary non-stick coatings. In 2010, the Clauss AirShoc garden tools were awarded a GOOD DESIGN award. In 2013, Clauss launched a family of titanium bonded non-stick putty knives that are unique in their category.

#### **Camillus**

Since 1876 Camillus has been supplying the world with innovative and high quality knives. The Camillus brand has a strong heritage in the hunting, sporting and tactical markets. The Company acquired the brand in 2007 and re-launched it in 2009 with an updated and innovative line of fixed blade, folding knives and tactical tools. Many of the knives are enhanced with Titanium Carbonitride coatings to increase the hardness of the blade of up to 10 times that of untreated stainless steel.

In 2011, the Company signed an agreement with Les Stroud of the TV show *Survivorman*, to co-design and co-brand a line of knives and survival tools. The first knives were introduced in 2012 and include various types of folding and fixed blade knives as well as machetes and survival tools.

In 2014, Camillus launched a wide variety of new products, including the Camillus Carnivore X machete, Ravenous tomahawk, Heat Sizzle and WildFire knives and the Trench multitool. In 2015, Camillus introduced Glide, its first pocket sharpener. In 2016, Camillus launched a new line of assisted folding knives using its patented linkage system and its ball-bearing assisted system.

#### **Cuda**

We launched the Cuda line of fishing tools and knives in 2015. Featuring titanium bonded steels and alloys, Cuda tools provide world class hardness, corrosion and adhesive resistance. In July of 2015, Cuda won Best of Show in the "Fish Smart" category at the ICast show in Orlando, Florida. In January 2016, Cuda won six GOOD DESIGN awards from the Chicago Athenaeum, Museum of Architecture and Design.

#### **DMT**

DMT products are leaders in sharpening tools for knives, scissors, chisels, skis, skates and many other edges that require sharpening. DMT was founded in 1976 by aerospace engineers. The DMT products use a proprietary process of finely dispersed diamonds bonded to the surfaces of sharpeners.

## **First Aid & Safety**

### **First Aid Only**

The First Aid Only brand offers first aid kits, refills, and safety products that meet regulatory requirements for a broad range of industries. The Smart Compliance® first aid kit is a simple and effective system for restocking workplace first aid cabinets.

### **Pac-Kit**

The Pac-Kit brand offers first aid kits, industrial stations and refills, emergency medical travel and recreational kits for the industrial, safety, transportation and marine markets. The brand has a long history dating back to the 19th century. Although Pac-Kit's products are similar to the PhysiciansCare brand, the Pac-Kit brand is especially known for its customized products which are designed to meet customer specifications.

### **PhysiciansCare**

The PhysiciansCare brand offers a wide assortment of first aid kits, emergency and disaster kits, kit refills, hearing, eye, and head protection, as well as ergonomic supports and braces. PhysiciansCare also carries a branded line of over-the-counter medications, including the active ingredients aspirin, acetaminophen and ibuprofen.

### **Product Development**

Our strong commitment to understanding our consumers and defining products that fulfill their needs through innovation drives our product development strategy, which we believe is and will be a key contributor to our success. The Company incurred research and development costs of \$750,000 in 2016 and \$690,000 in 2015.

### **Intellectual Property**

The Company owns many patents and trademarks that are important to its business. The Company's success depends in part on its ability to maintain patent protection for its products, to preserve its proprietary technology and to operate without infringing upon the patents or proprietary rights of others. The Company generally files patent applications in the United States and foreign countries where patent protection for its technology is appropriate and available. The Company also considers its trademarks important to the success of its business. The more significant trademarks include Westcott, Clauss, Camillus, PhysiciansCare, First Aid Only, Cuda, DM Tand Pac-Kit. Patents and trademarks are amortized over their estimated useful lives. The weighted average amortization period remaining for intangible assets at December 31, 2016 was 8 years.

### **Product Distribution; Major Customers**

Independent manufacturer representatives and direct sales are primarily used to sell the Company's line of consumer products to wholesale, contract and retail stationery distributors, office supply super stores, school supply distributors, industrial distributors, wholesale florists, mass market retailers and hardware chains (including through their websites). The Company also sells a limited selection of its products directly to consumers through its own websites. In each 2016 and 2015, the Company had two customers that individually exceeded 10% of consolidated net sales. In 2016, net sales to these customers amounted to approximately 14% and 11%, respectively of consolidated net sales, and 12% for each in 2015.

### **Competition**

The Company competes with many companies in each market and geographic area. The Company believes that the principal points of competition in these markets are product innovation, quality, price, merchandising, design and engineering capabilities, product development, timeliness and completeness of delivery, conformity to customer specifications and post-sale support. The major competitors in the cutting category are 3M and Fiskars Corporation. The major competitors in the measuring category are Mapped and Staedtler. The major competitor in the pencil sharpener category is Bostitch. The major competitors in the first aid & safety category are Honeywell, 3M and Johnson & Johnson.

### **Seasonality**

Traditionally, the Company's sales are stronger in the second and third quarters of the fiscal year due to the seasonal nature of the back-to-school business.

### **Compliance with Environmental Laws**

The Company believes that it is in compliance with applicable environmental laws. The Company anticipates that no material adverse financial impact will result from compliance with current environmental rules and regulations. On April 7, 2014, the Company sold its Fremont, NC distribution facility for \$850,000 in cash. Under the terms of the sales agreement, the Company is responsible for environmental remediation on the property. As a result of studies and estimates prepared by an independent environmental consulting firm, and in conjunction with the sale of the property, the Company recorded a liability of \$300,000 in the second quarter of 2014, related to the remediation of the property. The accrual included the total estimated costs of remedial activities and post-remediation operating and maintenance costs. Remediation work on the Fremont project began in the third quarter of 2014 and was completed in 2015. In addition to the remediation work, the Company, with the assistance of its independent environmental consulting firm, must continue to monitor contaminant levels on the property to ensure they comply with governmental standards. The Company expects that the monitoring period will last a period of five years after the completion of the remediation and be complete by the end of 2020.

See Note 16 of the Notes to Consolidated Financial Statements in this report for additional information regarding the cost of remediation and related matters, including ongoing monitoring of contaminant levels.

### **Employees**

As of December 31, 2016, the Company employed 400 people, all of whom are full time and none of whom is covered by union contracts. Employee relations are considered good and no foreseeable problems with the work force are evident.

### **Available Information**

The Company files its annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) of the Securities Exchange Act of 1934 with the SEC electronically. These filings may also be read and copied at the SEC's Public Reference Room which is located at 100 F Street N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is <http://www.sec.gov>.

You may obtain at no charge, a copy of the Company's annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports on the Company's website at <http://www.acmeunited.com> or by contacting the Investor Relations Department at the Company's corporate offices by calling (203) 254-6060. Such reports and other information are made available as soon as reasonably practicable after such material is filed with or furnished to the SEC.

## **Item 1A. Risk Factors**

**The Company is subject to a number of significant operational risks that might cause the Company's actual results to vary materially from its forecasts, targets or projections, including:**

- achieving planned revenue and profit growth in each of the Company's business segments;
- changes in customer requirements and in the volume of sales to principal customers;
- the timing of orders and shipments;
- emergence of new competitors or consolidation of existing competitors; and
- industry demand fluctuations.



The Company's expectations for both short and long-term future net revenues are based on the Company's estimates of future demand. Orders from the Company's principal customers are ultimately based on demand from end-users and end-user demand can be difficult to predict. Low end-user demand would negatively affect orders the Company receives from distributors and other principal customers which could, in turn adversely affect the Company's revenues in any fiscal period. If the Company's estimates of sales are not accurate and the Company experiences unforeseen variability in its revenues and operating results, the Company may be unable to adjust its expense levels accordingly and its profit margins could be adversely affected.

**Because our products are primarily sold by third parties, our financial results depend in part on the financial health of these parties and any loss of a third party distributor could adversely affect the Company's revenues.**

A number of the Company's products are sold through third-party distributors and large retailers. Some of our distributors also market products that compete with our products. Changes in the financial or business conditions or the purchasing decisions of these third parties or their customers could affect our sales and profitability.

Additionally, no assurances can be given that any or all of such distributors or retailers will continue their relationships with the Company. Distributors and other significant retail customers cannot easily be replaced and the loss of revenues and the Company's inability to reduce expenses to compensate for the loss of revenues could adversely affect the Company's net revenues and profit margins.

**The ability to deliver products to our customers in a timely manner and to satisfy our customers' fulfillment standards are subject to several factors, some of which are beyond our control.**

Customers place great emphasis on timely delivery of our products for specific selling seasons, especially during our second and third fiscal quarters, and on the fulfillment of consumer demand throughout the year. We cannot control all of the various factors that might affect product delivery to customers. Vendor production delays, difficulties encountered in shipping from overseas and customs clearance delays are on-going risks of our business. We also rely upon third-party carriers for our product shipments from our distribution centers to customers. Accordingly, we are subject to risks, including labor disputes, inclement weather, natural disasters, possible acts of terrorism, availability of shipping containers, and increased security restrictions associated with such carriers' ability to provide delivery services to meet our shipping needs. Failure to deliver products to our customers in a timely and effective manner, often under special vendor requirements to use specific carriers and delivery schedules, could damage our reputation and brands and result in loss of customers or reduced orders.

**Reliance on foreign suppliers could adversely affect the Company's business.**

The Company sources its products from suppliers located in Asia, Europe and the United States. The Company's Asia vendors are located primarily in China, which subjects the Company to various risks within the region including regulatory, political, economic and foreign currency changes. The Company's ability to select and retain reliable vendors and suppliers who provide timely deliveries of quality products efficiently will impact its success in meeting customer demand for timely delivery of quality products. The Company's sourcing operations and its vendors are impacted by labor costs in China. Labor historically has been readily available at low cost relative to labor costs in North America. However, as China is experiencing rapid social, political and economic changes, labor costs have risen in some regions and there can be no assurance that labor will continue to be available to the Company in China at costs consistent with historical levels or that changes in labor or other laws will not be enacted which would have a material adverse effect on the Company's operations in China. Interruption of supplies from any of the Company's vendors, or the loss of one or more key vendors, could have a negative effect on the Company's business and operating results.

Changes in currency exchange rates might negatively affect the profitability and business prospects of the Company and its overseas vendors. In particular, although the Chinese Renminbi has recently depreciated against the U.S. Dollar, if the Chinese Renminbi appreciates with respect to the U.S. Dollar in the future, the Company may experience cost increases on such purchases, and this can adversely impact profitability. Future interventions by China may result in further currency appreciation and increase our product costs over time. The Company may not be successful at implementing customer pricing or other actions in an effort to mitigate the related effects of the product cost increases.

Additional factors that could adversely affect the Company's business include increases in transportation costs, new or increased import duties, transportation delays, work stoppages, capacity constraints and poor quality.

**The Company's operations are increasingly global in nature. Our business, financial condition and results of operations could be adversely affected by the political and economic conditions in the countries in which we conduct business, by fluctuations in currency exchange rates and other factors related to our international operations.**

As our international operations and activities expand, we face increasing exposure to the risks of operating in foreign countries. These factors include:

- Changes generally in political, regulatory or economic conditions in the countries in which we conduct business.
- Trade protection measures in favor of local producers of competing products, including government subsidies, tax benefits, changes in local tax rates, trade actions (such as anti-dumping proceedings) and other measures giving local producers a competitive advantage over the Company.
- Changes in foreign currency exchange rates which could adversely affect our competitive position, selling prices and manufacturing costs, and therefore the demand for our products in a particular market.

These risks could affect the cost of manufacturing and selling our products, our pricing, sales volume, and ultimately our financial performance. The likelihood of such occurrences and their potential effect on the Company vary from country to country and are unpredictable.

**Continuing uncertainty in the global economy could negatively impact our business.**

Uncertainty in the global economy could adversely affect our customers and our suppliers and businesses such as ours. In addition, any uncertainty could have a variety of negative effects on the Company, such as reduction in revenues, increased costs, lower gross margin percentages, increased allowances for doubtful accounts and/or write-offs of accounts receivable and could otherwise have material adverse effects on our business, results of operations, financial condition and cash flows.

**The Company's business is subject to risks associated with seasonality which could adversely affect its cash flow, financial condition, or results of operations.**

The Company's business, historically, has experienced higher sales volume in the second and third quarters of the calendar year, when compared to the first and fourth quarters. The Company is a major supplier of products related to the "back-to-school" season, which occurs principally during the months of May, June, July and August. If this typical seasonal increase in sales of certain portions of the Company's product line does not materialize in any year, the Company could experience a material adverse effect on its business, financial condition and results of operations.

**Failure to manage growth and continue to expand our operations successfully could adversely affect our financial results.**

Our business has experienced significant historical growth over the years, and we expect our business to continue to grow organically and through strategic acquisitions. This growth places significant demands on management and operational systems. If we cannot effectively manage our growth, it is likely to result in operational inefficiencies and ineffective management of our business thus negatively impacting our operating results. To the extent we grow through strategic acquisitions, our success will depend on selecting the appropriate targets, integrating such acquisitions quickly and effectively and realizing any expected synergies and cost savings related to such acquisitions.

**Loss of a major customer could result in a decrease in the Company's future sales and earnings.**

Sales of our products are primarily concentrated in a few major customers including office product superstores and mass market distributors. In each of 2016 and 2015, the Company had two customers that individually exceeded 10% of consolidated net sales. In 2016, net sales to these customers amounted to approximately 14% and 11%, respectively of consolidated net sales, and 12% for each in 2015. The Company anticipates that a limited number of customers may account for a substantial portion of its total net revenues for the foreseeable future. The business risks associated with this concentration, including increased credit risks for these and other customers and the possibility of related bad debt write-offs, could negatively affect

our margins and profits. Additionally, the loss of a major customer, whether through competition or consolidation, or a disruption in sales to such a customer, could result in a decrease of the Company's future sales and earnings.

**The loss of key management could adversely affect the Company's ability to run its business.**

The Company's success depends, to a large extent, on the continued service of its executive management team, operating officers and other key personnel. The Company must therefore continue to recruit, retain and motivate management and operating personnel sufficient to maintain its current business and support its projected growth. The Company's inability to meet its staffing requirements in the future could adversely affect its results of operations.

**Failure to protect the Company's proprietary rights or the costs of protecting these rights could adversely affect its business.**

The Company's success depends in part on its ability to obtain patents and trademarks and to preserve other intellectual property rights covering its products and processes. The Company has obtained certain domestic and foreign patents, and intends to continue to seek patents on its inventions when appropriate. The process of seeking patent protection can be time consuming and expensive. There can be no assurance that pending patents related to any of the Company's products will be issued, in which case the Company may not be able to legally prevent others from producing similar and/or compatible competing products. If other companies were to sell similar and/or compatible competing products, the Company's results of operations could be adversely affected. Furthermore, there can be no assurance that the Company's efforts to protect its intellectual property will be successful. Any infringement of the Company's intellectual property or legal defense of such action could have a material adverse effect on the Company.

**The Company is subject to intense competition in all of the markets in which it competes.**

The Company's products are sold in highly competitive markets including at mass merchants, high volume office supply stores and online. The Company believes that the principal points of competition in these markets are product innovation, quality, price, merchandising, design and engineering capabilities, product development, timeliness and completeness of delivery, conformity to customer specifications and post-sale support. Competitive conditions may require the Company to match or better competitors' prices to retain business or market shares. The Company believes that its competitive position will depend on continued investment in innovation and product development, manufacturing and sourcing, quality standards, marketing and customer service and support. The Company's success will depend in part on its ability to anticipate and offer products that appeal to the changing needs and preferences of our customers in the various market categories in which it competes. The Company may not have sufficient resources to make the investments that may be necessary to anticipate those changing needs and the Company may not anticipate, identify, develop and market products successfully or otherwise be successful in maintaining its competitive position. In addition there are numerous uncertainties inherent in successfully developing and commercializing innovative new products on a continuing basis, and new product launches may not provide expected growth results. There are no significant barriers to entry into the markets for most of the Company's products.

**Compromises of our information systems or unauthorized access to confidential information or our customers' or associates' personal information may materially harm our business or damage our reputation.**

Through our sales and marketing activities and our business operations, we collect and store confidential information and certain personal information from our customers and associates. We also process payment card information and check information. In addition, in the normal course of business, we gather and retain personal information about our associates and generate and have access to confidential business information. Although we have taken steps designed to safeguard such information, there can be no assurance that such information will be protected against unauthorized access or disclosure. Computer hackers may attempt to penetrate our or our vendors' network security and, if successful, misappropriate such information. An Acme United associate, contractor or other third-party with whom we do business may also attempt to circumvent our security measures in order to obtain such information or inadvertently cause a breach involving such information. We could be subject to liability for failure to comply with privacy and information security laws, for failing to protect personal information, or for misusing personal information, such as use of such information for an unauthorized marketing purpose. Loss or misuse of confidential or

personal information could disrupt our operations, damage our reputation, and expose us to claims from customers, financial institutions, regulators, payment card associations, employees and other persons, any of which could have an adverse effect on our business, financial condition and results of operations.

**The Company may not be able to maintain or to raise prices in response to inflation and increasing costs.**

Future market and competitive pressures may prohibit the Company from raising prices to offset increased product costs, freight costs and other inflationary items or to offset currency fluctuations. The inability to pass these costs through to the Company's customers could have a negative effect on its results of operations.

**The Company may need to raise additional capital to fund its operations.**

The Company's management believes that, under current conditions, the Company's current cash and cash equivalents, cash generated by operations, together with the borrowing availability under its revolving loan agreement with HSBC Bank N.A., will be sufficient to fund planned operations for the next twelve months. However, if the Company is unable to generate sufficient cash from operations, it may be required to find additional funding sources. If adequate financing is unavailable or is unavailable on acceptable terms, the Company may be unable to maintain, develop or enhance its operations, products and services, take advantage of future opportunities or adequately respond to competitive pressures.

**Changes in interest rates could adversely affect us.**

We have exposure to increases in interest rates under our revolving credit loan agreement with HSBC, N.A. which presently bears interest at a rate of LIBOR plus 2%. In response to the last global economic recession, actions of the U.S. Federal Reserve and other central banking institutions, were taken to create and maintain a low interest rate environment. However, in December 2015, the U.S. Federal Reserve raised its benchmark interest rate by a quarter of a percentage point for the first time since 2006. The U.S. Federal Reserve raised this rate by an additional quarter of a percentage point in December 2016 and indicated that additional increases would likely be forthcoming in 2017. While it is unclear whether these actions suggest a change in previous monetary policy positions, any such change or market expectation of such change may result in significantly higher long-term interest rates. Increases in interest rates would increase our interest costs on our variable-rate debt as well as any future fixed rate debt, we may incur at higher interest rates, and interest which we pay reduces our cash available for working capital, acquisitions, and other uses.

**Product liability claims or regulatory actions could adversely affect the Company's financial results and reputation.**

Claims for losses or injuries allegedly caused by some of the Company's products arise in the ordinary course of its business. In addition to the risk of substantial monetary judgments, product liability claims or regulatory actions could result in negative publicity that could harm the Company's reputation in the marketplace or the value of its brands. The Company also could be required to recall possible defective products, which could result in adverse publicity and significant expenses. Although the Company maintains product liability insurance coverage, potential product liability claims are subject to a deductible or could be excluded under the terms of the policy.

**The Company is subject to environmental regulation and environmental risks.**

The Company is subject to national, state, provincial and/or local environmental laws and regulations that impose limitations and prohibitions on the discharge and emission of, and establish standards for the use, disposal and management of, certain materials and waste. These environmental laws and regulations also impose liability for the costs of investigating and cleaning up sites, and certain damages resulting from present and past spills, disposals, or other releases of hazardous substances or materials. Environmental laws and regulations can be complex and may change often. Capital and operating expenses required to comply with environmental laws and regulations can be significant, and violations may result in substantial fines and penalties. In addition, environmental laws and regulations, such as the Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA, in the United States impose liability on several grounds for the investigation and cleanup of contaminated soil, ground water and buildings and for damages to natural resources on a wide range of properties. For example, contamination at properties formerly owned or operated by the Company, as well as at properties it will own and operate, and properties

to which hazardous substances were sent by the Company, may result in liability for the Company under environmental laws and regulations. The costs of complying with environmental laws and regulations and any claims concerning noncompliance, or liability with respect to contamination in the future could have a material adverse effect on the Company's financial condition or results of operations. Refer to Note 16 – Sale of Property – of the Notes to Consolidated Financial Statements for further discussion of the environmental costs related to the sale in 2014 of property owned by the Company in Fremont, NC.

**The ability to deliver products to our customers in a timely manner and to satisfy our customers' fulfillment standards are subject to several factors, some of which are beyond our control.**

Customers place great emphasis on timely delivery of our products for specific selling seasons, especially during our second and third fiscal quarters, and on the fulfillment of consumer demand throughout the year. We cannot control all of the various factors that might affect product delivery to customers. Vendor production delays, difficulties encountered in shipping from overseas and customs clearance delays are on-going risks of our business. We also rely upon third-party carriers for our product shipments from our distribution centers to customers. Accordingly, we are subject to risks, including labor disputes, inclement weather, natural disasters, possible acts of terrorism, availability of shipping containers, and increased security restrictions associated with such carriers' ability to provide delivery services to meet our shipping needs. Failure to deliver products to our customers in a timely and effective manner, often under special vendor requirements to use specific carriers and delivery schedules, could damage our reputation and brands and result in loss of customers or reduced orders.

**Our shares of common stock are thinly traded and our stock price may be volatile.**

Because our common stock is thinly traded, its market price may fluctuate significantly more than the stock market in general or the stock prices of other companies listed on major stock exchanges. There were approximately 2,903,424 shares of our common stock held by non-affiliates as of December 31, 2016. Thus, our common stock will be less liquid than the stock of companies with broader public ownership, and, as a result, the trading price for shares of our common stock may be more volatile. Among other things, trading of a relatively small volume of our common stock may have a greater impact on the trading price for our stock than would be the case if our public float were larger.

## Item 1B. Unresolved Staff Comments

Not applicable to smaller reporting companies.

## Item 2. Properties

| Location                      | Square Footage | Purpose   |
|-------------------------------|----------------|---|
| <i>Owned</i>                  |                |   |
| Rocky Mount, NC               | 340,000        | Warehousing and distribution                                |
| Solingen, Germany             | 35,000         | Warehousing, distribution and administrative                |
|                               | 375,000        |   |
| <i>Leased</i>                 |                |   |
| Fairfield, CT                 | 15,400         | Administrative  |
| Bentonville, AK               | 1,500          | Administrative  |
| Vancouver, WA                 | 53,000         | Manufacturing, warehousing and distribution                 |
| Marlborough, MA               | 28,000         | Manufacturing, warehousing and distribution                 |
| Santa Ana, CA                 | 10,000         | Manufacturing, warehousing, distribution and administrative |
| Smyrna, TN                    | 13,000         | Manufacturing, warehousing and distribution                 |
| Mount Forest, Ontario, Canada | 42,500         | Warehousing and distribution                                |
| Orangeville, Ontario, Canada  | 2,850          | Administrative  |
| Hong Kong, China              | 2,750          | Administrative  |
| Guangzhou, China              | 3,500          | Administrative  |
| Ningbo, China                 | 1,800          | Administrative  |
|                               | 174,300        |   |
| Total                         | <u>549,300</u> |   |

Management believes that the Company's facilities, whether leased or owned, are adequate to meet its current needs and should continue to be adequate for the foreseeable future.

### **Item 3. Legal Proceedings**

There are no pending material legal proceedings to which the Company is a party or, to the actual knowledge of the Company, contemplated by any governmental agency.

### **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.

The Company's Common Stock is traded on the NYSE MKT under the symbol "ACU". The following table sets forth the high and low sale prices on the NYSE MKT for the Common Stock for the periods indicated:

|                                     | High     | Low      | Dividends Declared |
|-------------------------------------|----------|----------|--------------------|
| <b>Year Ended December 31, 2016</b> |          |          |                    |
| Fourth Quarter                      | \$ 26.66 | \$ 19.49 | \$ .10             |
| Third Quarter                       | 22.19    | 18.42    | .10                |
| Second Quarter                      | 18.85    | 15.95    | .10                |
| First Quarter                       | 17.97    | 13.01    | .10                |
| <b>Year Ended December 31, 2015</b> |          |          |                    |
| Fourth Quarter                      | \$ 18.25 | \$ 15.58 | \$ .10             |
| Third Quarter                       | 18.50    | 15.99    | .09                |
| Second Quarter                      | 19.74    | 17.05    | .09                |
| First Quarter                       | 20.30    | 17.34    | .09                |

As of March 3, 2017 there were approximately 2,168 holders of record of the Company's Common Stock.

### Performance Graph

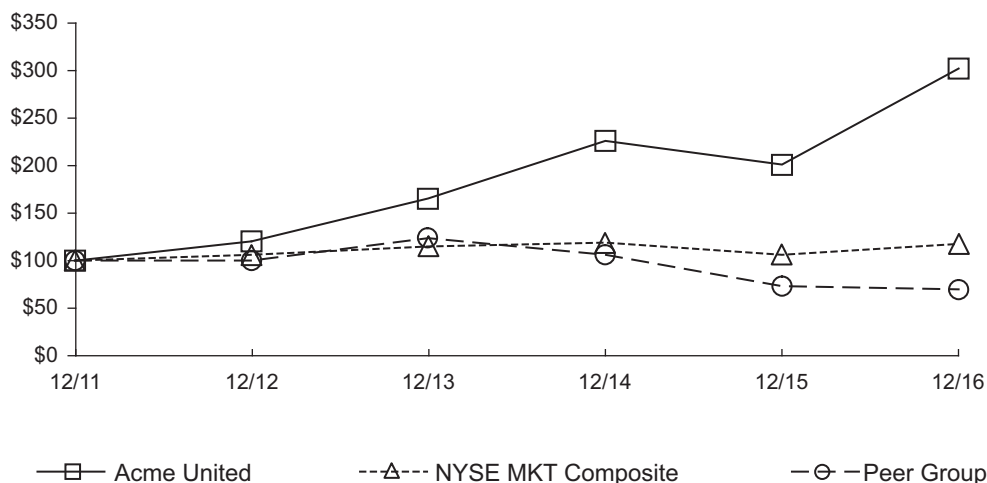
The graph below compares the yearly cumulative total shareholder return on the Company's Common Stock with the yearly cumulative total return of the following for the period 2011 to 2016: (a) the NYSE MKT Index and (b) a diversified peer group of companies that, like the Company, (i) are currently listed on the NYSE MKT, and (ii) have a market capitalization of \$80 million to \$90 million.

The Company does not believe that it can reasonably identify a peer group of companies, on an industry or line-of-business basis, for the purpose of developing a comparative performance index. While the Company is aware that some other publicly-traded companies market products in the Company's line-of-business, none of these other companies provide most or all of the products offered by the Company, and many offer products or services not offered by the Company. Moreover, some of these other companies that engage in the Company's line-of-business do so through divisions or subsidiaries that are not publicly-traded. Furthermore, many of these other companies are substantially more highly capitalized than the Company. For these reasons, any such comparison would not, in the opinion of the Company, provide a meaningful index of comparative performance.

The comparisons in the graph below are based on historical data and are not indicative of, or intended to forecast, the possible future performance of the Company's Common Stock.

## COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN\*

Among Acme United, the NYSE MKT Composite Index,  
and a Peer Group



\*\$100 invested on 12/31/11 in stock or index, including reinvestment of dividends.  
Fiscal year ending December 31.

### Issuer Purchases of Equity Securities

On November 22, 2010, the Company announced a Common Stock repurchase program of up to a total 200,000 shares. The program does not have an expiration date. During the twelve months ended December 31, 2016, the Company repurchased 61,493 shares of its Common Stock. As of December 31, 2016, 41,227 shares may be purchased in the future under the repurchase program announced in 2010.

## Item 6. Selected Financial Data

### FIVE YEAR SUMMARY OF SELECTED FINANCIAL DATA

(All figures in thousands except per share data)

|                                      | 2016       | 2015       | 2014       | 2013      | 2012      |
|--------------------------------------|------------|------------|------------|-----------|-----------|
| Net sales                            | \$ 124,574 | \$ 109,812 | \$ 107,222 | \$ 89,577 | \$ 84,370 |
| Net income                           | \$ 5,851   | \$ 4,794   | \$ 4,789   | \$ 4,003  | \$ 3,549  |
| Total assets                         | \$ 92,066  | \$ 81,421  | \$ 79,308  | \$ 68,079 | \$ 67,828 |
| Long-term debt, less current portion | \$ 32,936  | \$ 25,913  | \$ 24,147  | \$ 22,912 | \$ 24,320 |
| Net income                           |            |            |            |           |           |
| Per share (Basic)                    | \$ 1.76    | \$ 1.44    | \$ 1.48    | \$ 1.26   | \$ 1.14   |
| Per share (Diluted)                  | \$ 1.64    | \$ 1.30    | \$ 1.36    | \$ 1.22   | \$ 1.13   |
| Dividends per share                  | \$ 0.40    | \$ 0.37    | \$ 0.34    | \$ 0.31   | \$ 0.28   |

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

### Forward-Looking Information

The Company may from time to time make written or oral "forward-looking statements" including statements contained in this report and in other communications by the Company, which are made in good faith pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Such



statements are based on our beliefs as well as assumptions made by and information currently available to us. When used in this document, words like “may,” “might,” “will,” “except,” “anticipate,” “believe,” “potential,” and similar expressions are intended to identify forward-looking statements. Actual results could differ materially from our current expectations.

These forward-looking statements include statements of the Company’s plans, objectives, expectations, estimates and intentions, which are subject to change based on various important factors (some of which are beyond the Company’s control). The following factors, in addition to others not listed, could cause the Company’s actual results to differ materially from those expressed in forward looking statements: the strength of the domestic and local economies in which the Company conducts operations, the impact of uncertainties in global economic conditions, changes in client needs and consumer spending habits, the impact of competition and technological change on the Company, the Company’s ability to manage its growth effectively, including its ability to successfully integrate any business or property which it might acquire, and currency fluctuations. For a more detailed discussion of these and other factors affecting us, see the Risk Factors described in Item 1A of this Annual Report on Form 10-K. The Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law.

## **Critical Accounting Policies**

The following discussion and analysis of financial condition and results of operations are based upon the Company’s consolidated financial statements, which have been prepared in conformity with accounting principles generally accepted in the United States of America. The Company’s significant accounting policies are more fully described in Note 2 of the Notes to Consolidated Financial Statements. Certain accounting estimates are particularly important to the understanding of the Company’s financial position and results of operations and require the application of significant judgment by the Company’s management and can be materially affected by changes from period to period in economic factors or conditions that are outside the control of management. The Company’s management uses its judgment to determine the appropriate assumptions to be used in the determination of certain estimates. Those estimates are based on historical operations, future business plans and projected financial results, the terms of existing contracts, the observance of trends in the industry, information provided by customers and information available from other outside sources, as appropriate. The following discusses the Company’s critical accounting policies and estimates:

*Estimates.* Operating results may be affected by certain accounting estimates. The most sensitive and significant accounting estimates in the financial statements relate to customer rebates, valuation allowances for deferred income tax assets, obsolete and slow moving inventories, potentially uncollectible accounts receivable, pension liability and accruals for income taxes. Although the Company’s management has used available information to make judgments on the appropriate estimates to account for the above matters, there can be no assurance that future events will not significantly affect the estimated amounts related to these areas where estimates are required. However, historically, actual results have not been materially different than original estimates.

*Revenue Recognition.* The Company recognizes revenue from the sales of its products when ownership transfers to the customers, which occurs either at the time of shipment or upon delivery based upon contractual terms with the customer. The Company recognizes customer program costs, including rebates, cooperative advertising, slotting fees and other sales related discounts, as a reduction to sales.

*Allowance for doubtful accounts.* The Company provides an allowance for doubtful accounts based upon a review of outstanding accounts receivable, historical collection information and existing economic conditions. The allowance for doubtful accounts represents estimated uncollectible accounts receivables associated with potential customer defaults on contractual obligations, usually due to potential insolvencies. The allowance includes amounts for certain customers where a risk of default has been specifically identified. In addition, the allowance includes a provision for customer defaults based on historical experience. The Company actively monitors its accounts receivable balances, and its historical experience of annual accounts receivable write offs has been negligible.

*Customer Rebates.* Customer rebates and incentives are a common practice in the office products industry. We incur customer rebate costs to obtain favorable product placement, to promote sell-through of products and to maintain competitive pricing. Customer rebate costs and incentives, including volume rebates,

promotional funds, catalog allowances and slotting fees, are accounted for as a reduction to gross sales. These costs are recorded at the time of sale and are based on individual customer contracts. Management periodically reviews accruals for these rebates and allowances, and adjusts accruals when appropriate.

*Obsolete and Slow Moving Inventory.* Inventories are stated at the lower of cost, determined on the first-in, first-out method, or market. An allowance is established to adjust the cost of inventory to its net realizable value. Inventory allowances are recorded for obsolete or slow moving inventory based on assumptions about future demand and marketability of products, the impact of new product introductions and specific identification of items, such as discontinued products. These estimates could vary significantly from actual requirements if future economic conditions, customer inventory levels or competitive conditions differ from expectations.

*Income Taxes.* Deferred income tax liabilities or assets are established for temporary differences between financial and tax reporting bases and are subsequently adjusted to reflect changes in tax rates expected to be in effect when the temporary differences reverse. A valuation allowance is recorded to reduce deferred income tax assets to an amount that is more likely than not to be realized.

*Intangible Assets and Goodwill.* Intangible assets with finite useful lives are recorded at cost upon acquisition and amortized over the term of the related contract, if any, or useful life, as applicable. Intangible assets held by the Company with finite useful lives include patents and trademarks. The weighted average amortization period for intangible assets at December 31, 2016 was 8 years. The Company periodically reviews the values recorded for intangible assets and goodwill to assess recoverability from future operations whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. At December 31, 2016 and 2015, the Company assessed the recoverability of its long-lived assets and goodwill and believed that there were no events or circumstances present that would require a test of recoverability on those assets. As a result, there was no impairment of the carrying amounts of such assets and no reduction in their estimated useful lives. The net book value of the Company's intangible assets was \$13,988,186 as of December 31, 2016, compared to \$11,950,991 as of December 31, 2015, and the net book value of the Company's goodwill was approximately \$3,948,000 at December 31, 2016 and \$1,406,000 at December 31, 2015.

*Pension Obligation.* The pension benefit obligation is based on various assumptions used by third-party actuaries in calculating this amount. These assumptions include discount rates, expected return on plan assets, mortality rates and other factors. Revisions in assumptions and actual results that differ from the assumptions affect future expenses, cash funding requirements and obligations. Our funding policy is to fund the plan in accordance with applicable requirements of the Internal Revenue Code and regulations.

These assumptions are reviewed annually and updated as required. The Company has a frozen defined benefit pension plan. Two assumptions, the discount rate and the expected return on plan assets, are important elements of expense and liability measurement.

We determine the discount rate used to measure plan liabilities as of the December 31 measurement date. The discount rate reflects the current rate at which the associated liabilities could be effectively settled at the end of the year. In estimating this rate, we look at rates of return on fixed-income investments of similar duration to the liabilities in the plan that receive high, investment grade ratings by recognized ratings agencies. Using these methodologies, we determined a discount rate of 3.40% to be appropriate as of December 31, 2016, which is a decrease of 0.1 percentage point from the rate used as of December 31, 2015.

The expected long-term rate of return on assets considers the Company's historical results and projected returns for similar allocations among asset classes. In accordance with generally accepted accounting principles, actual results that differ from the Company's assumptions are accumulated and amortized over future periods and, therefore, affect expense and obligation in future periods. For the U.S. pension plan, our assumption for the expected return on plan assets was 6.0% for 2016. For more information concerning these costs and obligations, see the discussion in Note 6 – Pension and Profit Sharing, in the Notes to the Company's Consolidated Financial Statements in this report.

*Accounting for Stock-Based Compensation.* Stock based compensation cost is measured at the grant date fair value of the award and is recognized as expense over the requisite service period. The Company uses the Black-Scholes option – pricing model to determine fair value of the awards, which involves certain subjective assumptions. These assumptions include estimating the length of time employees will retain their vested stock options before exercising them (“expected term”), the estimated volatility of the Company's common stock price over the expected term (“volatility”) and the number of options for which vesting requirements

will not be completed (“forfeitures”). Changes in the subjective assumptions can materially affect estimates of fair value stock-based compensation, and the related amount recognized on the consolidated statements of operations. Refer to Note 11 – Stock Option Plans – in the Notes to Consolidated Financial Statements in this report for a more detailed discussion.

## **Results of Operations 2016 Compared with 2015**

On April 7, 2014, the Company sold its Fremont, NC distribution facility for \$850,000 in cash. The facility originally served as a manufacturing site for the Company’s scissors and rulers. In conjunction with the sale of the property, the Company recorded a liability of \$300,000 in the second quarter of 2014, related to environmental remediation of the property. The accrual included the total estimated costs of remedial activities and post-remediation operating and maintenance costs. The balance remaining in the accrual at December 31, 2016 was approximately \$57,000. Additional information concerning the sale of the property is set forth in Note 16 – Sale of Property, in the Notes to Condensed Consolidated Financial Statements in this report.

On February 1, 2016, the Company purchased certain assets of Vogel Capital, Inc., d/b/a Diamond Machining Technology (DMT), located in Marlborough, MA. DMT products are leaders in sharpening tools for knives, scissors, chisels and other cutting tools. The DMT products use finely dispersed diamonds on the surfaces of sharpeners. The Company purchased inventory, accounts receivable, equipment, patents, trademarks and other intellectual property for \$6.97 million using funds borrowed under its revolving credit facility with HSBC. Additional information concerning the acquisition of DMT assets is set forth in Note 17 – Business Combinations, in the Notes to Condensed Consolidated Financial Statements in this report.

### **Net Sales**

In 2016, sales increased by \$14,762,000, or 13%, to \$124,574,000 compared to \$109,812,000 in 2015.

The U.S. segment sales increased by \$14,144,000 or 15% in 2016 compared to 2015. The increase in net sales for the twelve months ended December 31, 2016 in the U.S. segment was primarily due to increased sales of Westcott school and office products, Camillus knives, Cuda fishing tools and first aid products. Revenues from the acquisition of DMT contributed \$5.1 million.

Sales in Canada were constant in U.S. dollars but increased 4% in local currency in 2016 compared to 2015.

European sales increased by \$572,000 or 9% in both U.S. dollars and local currency in 2016 compared to 2015. The increase in sales in Europe in 2016 was primarily due to sales of DMT products and increased market share in the office products channel.

### **Gross Profit**

Gross profit was 36.6% of net sales in 2016 compared to 36.0% in 2015.

### **Selling, General and Administrative**

Selling, general and administrative expenses were \$37,113,000 in 2016 compared with \$32,214,212 in 2015, an increase of \$4,899,000 or 15%. SG&A expenses were 30% of net sales in 2016 compared to 29% in 2015. The increase in SG&A expenses was primarily the result of incremental fixed costs resulting from the acquisition of DMT assets and increases in delivery costs and sales commissions which resulted from higher sales and higher personnel related costs, which include compensation and recruiting costs.

### **Operating Income**

Operating income was \$8,442,000 in 2016, compared with \$7,347,000 in 2015. Operating income in the U.S. increased by approximately \$622,000 primarily as a result of higher sales. Operating income in Canada increased by approximately \$510,000 principally due to higher sales. Operating income in the European segment decreased by approximately \$40,000. Although sales and related gross margin increased in 2016 in Europe, the Company made investments in increased headcount for sales and logistics personnel.

## **Interest Expense, Net**

Net interest expense for 2016 was \$869,000, compared with \$565,000 for 2015, an increase of \$304,000. The increase in interest expense, net for 2016, was primarily the result of higher average borrowings during 2016 under the Company's bank revolving credit facility compared to 2015.

## **Other Expense, Net**

Net other expense was \$77,000 in 2016 compared to net other expense of \$167,000 in 2015. The decrease in other expense, net for 2016, was primarily due to lower losses from foreign currency transactions.

## **Income Tax**

The effective tax rate in 2016 was 22%, compared to 28% in 2015. Excluding the impact of a charitable product donation in 2016, the effective tax rate would have been 25%. The 3 point decline in the effective tax rate was due to a lower proportion of earnings from operations in the United States, which has a higher tax rate than the countries in which our subsidiaries operate, compared to 2015.

## **Off-Balance Sheet Transactions**

The Company did not engage in any off-balance sheet transactions during 2016.

## **Liquidity and Capital Resources**

During 2016, working capital increased by approximately \$5.0 million compared to December 31, 2015. Inventory increased by approximately \$1.7 million, or 5%, which corresponds to the increase in sales. The Company expects that changes in inventory levels will continue to be consistent with changes in sales, including the seasonal impact on the Company's revenue stream. Inventory turnover, calculated using a twelve month average inventory balance, increased to 2.1 from 2.0 at December 31, 2015. The reserve for slow moving and obsolete inventory was \$677,253 at December 31, 2016 compared to \$698,592 at December 31, 2015. We do not anticipate significant increases in the allowance for slow moving and obsolete inventory in the ordinary course of business during 2017.

Receivables increased by approximately \$400,000. The average number of days sales outstanding in accounts receivable was 64 days in 2016 compared to 64 days in 2015. Accounts payable and other current liabilities increased by approximately \$.9 million.

At December 31, 2016, total debt outstanding under the Company's revolving credit facility increased by approximately \$7.0 million compared to total debt at December 31, 2015. The change in debt was primarily due to borrowings to fund the acquisition of assets of DMT on February 1, 2016. As of December 31, 2016, \$32,935,858 was outstanding and \$17,064,142 was available for borrowing under the Company's revolving credit facility.

On May 6, 2016, the Company amended its revolving credit loan agreement with HSBC Bank, N.A. The amended facility provides for borrowings of up to an aggregate of \$50 million at an interest rate of LIBOR plus 2.0%. In addition, the Company must pay a facility fee, payable quarterly, in an amount equal to two tenths of one percent (.20%) per annum of the average daily unused portion of the revolving credit line. All principal amounts outstanding under the agreement are required to be repaid in a single amount on May 6, 2019, the date the agreement expires; interest is payable monthly. Funds borrowed under the agreement may be used for working capital, acquisitions, general operating expenses, share repurchases and certain other purposes. Under the revolving loan agreement, the Company is required to maintain specific amounts of tangible net worth, a specified debt service coverage ratio and a fixed charge coverage ratio and must have annual net income greater than \$0, measured as of the end of each fiscal year. At December 31, 2016, the Company was in compliance with the covenants then in effect under the loan agreement with HSBC.

Capital expenditures during 2016 and 2015 were \$1,809,823 and \$1,756,732, respectively, which were, in part, financed with borrowings under the Company's revolving credit facility. Capital expenditures in 2017 are expected to increase approximately \$1.0 million over 2016, to increase capacity and upgrade equipment at the Company's recently acquired DMT and Spill Magic facilities.

The Company believes that cash on hand, and cash generated from operating activities, together with funds available under its revolving credit facility, are expected, under current conditions, to be sufficient to finance the Company's planned operations for at least the next twelve months.

## **Recently Issued Accounting Standards**

In February 2016, the FASB issued guidance that will change the requirements for accounting for leases. The principal change under the new accounting guidance is that lessees under leases classified as operating leases will recognize a right-of-use asset and a lease liability. Current lease accounting does not require lessees to recognize assets and liabilities arising under operating leases on the balance sheet. Under the new guidance, lessees (including lessees under leases classified as finance leases and operating leases) will recognize a right-to-use asset and a lease liability on the balance sheet, initially measured as the present value of lease payments under the lease. Expense recognition and cash flow presentation guidance will be based upon whether the lease is classified as an operating lease or a finance lease (the classification criteria for distinguishing between finance leases and operating leases is substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current guidance). The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition approach for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements; the guidance provides certain practical expedients. The Company is currently evaluating this guidance to determine its impact on the Company's results of operations, cash flows and financial position.

In March 2016, the FASB issued ASU 2016-09 to improve the accounting for employee share-based payments. This standard simplifies several aspects of the accounting for share-based payment award transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows, as part of FASB's simplification initiative to reduce cost and complexity in accounting standards while maintaining or improving the usefulness of the information provided to the users of financial state. The Company is still evaluating whether the adoption of this standard on January 1, 2017 will have a material impact on its consolidated financial statements.

In August 2015, the FASB issued ASU No. 2015-14, which defers the effective date of ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) by one year. ASU 2015-14 is a comprehensive new revenue recognition model requiring a company to recognize revenue to depict the transfer of goods or services to a customer at an amount reflecting the consideration it expects to receive in exchange for those goods or services. As a result, the ASU is now effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, which for us is the first quarter of 2018. Earlier application is permitted for fiscal years beginning after December 15, 2016, including interim reporting periods within those years, which for us is the first quarter of 2017. We do not expect this ASU to have a material impact on our financial position, results of operations or disclosures.

In November 2015, the FASB issued ASU 2015-17, "Balance Sheet Classification of Deferred Taxes" (Topic 740), which simplifies the presentation of deferred income taxes. This ASU requires that deferred tax assets and liabilities be classified as non-current in a statement of financial position. ASU 2015-17 may be adopted either prospectively or retrospectively and is effective for reporting periods beginning after December 15, 2016, with early adoption permitted. The Company expects the adoption of this ASU to result in a reclassification of its net current deferred tax asset to the net non-current deferred tax asset on its consolidated balance sheet.

In July 2015, the FASB issued ASU 2015-11, "Simplifying the Measurement of Inventory" (Topic 330). The new guidance changes the subsequent measurement of inventory from lower of cost or market to lower of cost and net realizable value. ASU 2015-11 should be applied on a prospective basis and is effective for the Company beginning in the first fiscal quarter of 2017. Early adoption is permitted. The Company does not expect the adoption of this guidance to have a material impact on its financial position, results of operations or cash flows.

## **Item 7A. Quantitative and Qualitative Disclosure about Market Risk**

Not applicable to smaller reporting companies.

## Item 8. Financial Statements and Supplementary Data

### Acme United Corporation and Subsidiaries CONSOLIDATED STATEMENTS OF OPERATIONS

| For the years ended December 31,             | 2016           | 2015           |
|--|----------------|----------------|
| Net sales                                    | \$ 124,574,371 | \$ 109,811,768 |
| Cost of goods sold                           | \$ 79,019,315  | 70,250,550     |
| Gross profit                                 | 45,555,056     | 39,561,218     |
| Selling, general and administrative expenses | 37,113,000     | 32,214,212     |
| Operating income                             | 8,442,056      | 7,347,006      |
| <b>Non operating items:</b>                  |                |                |
| Interest:                                    |                |                |
| Interest expense                             | (868,626)      | (570,080)      |
| Interest income                              | 119            | 4,868          |
| Interest expense, net                        | (868,507)      | (565,212)      |
| Other expense                                | (76,846)       | (167,397)      |
| Total other expense, net                     | (945,353)      | (732,609)      |
| Income before income tax expense             | 7,496,703      | 6,614,397      |
| Income tax expense                           | 1,645,705      | 1,820,872      |
| Net income                                   | \$ 5,850,998   | \$ 4,793,525   |
| <b>Earnings per share:</b>                   |                |                |
| Basic  | \$ 1.76        | \$ 1.44        |
| Diluted                                      | \$ 1.64        | \$ 1.30        |

See accompanying Notes to Consolidated Financial Statements.

### Acme United Corporation and Subsidiaries CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

| For the Years Ended December 31,  | 2016         | 2015         |
|---|--------------|--------------|
| Net income  | \$ 5,850,998 | \$ 4,793,525 |
| Other comprehensive (loss) gain –<br>Foreign currency translation                             | (89,556)     | (830,867)    |
| Change in net prior service credit and actuarial gains (losses),<br>net of income tax expense | 284,145      | (52,825)     |
| Total other comprehensive gains (loss)  | 194,589      | (883,692)    |
| Comprehensive income  | \$ 6,045,587 | \$ 3,909,833 |

See accompanying Notes to Consolidated Financial Statements.

**Acme United Corporation and Subsidiaries**  
**CONSOLIDATED BALANCE SHEETS**

|   | December 31, 2016    | December 31, 2015    |
|---|----------------------|----------------------|
| <b>ASSETS</b>   |                      |                      |
| Current assets:   |                      |                      |
| Cash and cash equivalents   | \$ 5,910,770         | \$ 2,425,891         |
| Accounts receivable, less allowance   | 20,020,984           | 19,565,088           |
| Inventories   | 37,237,861           | 35,507,591           |
| Deferred income taxes   | 501,708              | 389,961              |
| Prepaid expenses and other current assets   | 1,791,871            | 1,744,956            |
| <b>Total current assets</b>   | <b>65,463,194</b>    | <b>59,633,487</b>    |
| Property, plant and equipment:  |                      |                      |
| Land  | 412,598              | 417,209              |
| Buildings   | 5,668,866            | 5,418,101            |
| Machinery and equipment   | 13,428,678           | 10,254,070           |
| <b>Total property, plant and equipment</b>  | <b>19,510,142</b>    | <b>16,089,380</b>    |
| Less: accumulated depreciation  | 11,537,242           | 8,687,902            |
| <b>Net plant, property and equipment</b>  | <b>7,972,900</b>     | <b>7,401,478</b>     |
| Intangible assets, less accumulated amortization  | 13,988,186           | 11,950,991           |
| Goodwill  | 3,948,235            | 1,406,000            |
| Deferred income taxes   | 668,641              | 880,917              |
| Other assets  | 24,936               | 148,493              |
| <b>Total assets</b>   | <b>\$ 92,066,092</b> | <b>\$ 81,421,366</b> |
| <b>LIABILITIES</b>  |                      |                      |
| Current liabilities:  |                      |                      |
| Accounts payable  | \$ 7,338,798         | \$ 6,664,160         |
| Other accrued liabilities   | 5,480,950            | 5,272,593            |
| <b>Total current liabilities</b>  | <b>12,819,748</b>    | <b>11,936,753</b>    |
| Long-term debt  | 32,935,858           | 25,912,652           |
| Other accrued liabilities – non current   | 190,140              | 388,400              |
| <b>Total liabilities</b>  | <b>45,945,746</b>    | <b>38,237,805</b>    |
| <b>STOCKHOLDERS' EQUITY</b>   |                      |                      |
| Common stock, par value \$2.50: authorized 8,000,000 shares;<br>issued – 4,788,965 shares in 2016 and 4,751,060 shares in<br>2015, including treasury stock | 11,971,657           | 11,876,895           |
| Treasury stock, at cost, 1,464,010 in 2016 and 1,402,517 shares in<br>2015  | (13,870,041)         | (12,962,947)         |
| Additional paid-in capital  | 8,493,256            | 9,460,008            |
| Accumulated other comprehensive loss  | (2,336,201)          | (2,530,790)          |
| Retained earnings   | 41,861,675           | 37,340,395           |
| <b>Total stockholders' equity</b>   | <b>46,120,346</b>    | <b>43,183,561</b>    |
| <b>Total liabilities and stockholders' equity</b>   | <b>\$ 92,066,092</b> | <b>\$ 81,421,366</b> |

See accompanying Notes to Consolidated Financial Statements.

**Acme United Corporation and Subsidiaries**  
**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**

|   | Outstanding<br>Shares of<br>Common<br>Stock | Common<br>Stock | Treasury<br>Stock | Additional<br>Paid-In<br>Capital | Accumulated<br>Other<br>Comprehensive<br>Loss | Retained<br>Earnings | Total       |
|---|---|-----------------|-------------------|----------------------------------|---|----------------------|-------------|
| Balances, December 31, 2014                         | 3,291,352                                   | 11,632,805      | (12,283,251)      | 7,941,330                        | (1,647,098)                                   | 33,784,270           | 39,428,056  |
| Net income  |   |                 |                   |                                  |   | 4,793,525            | 4,793,525   |
| Total other comprehensive loss                      |   |                 |                   |                                  | (883,692)                                     |                      | (883,692)   |
| Stock compensation expense                          |   |                 |                   | 513,986                          |   |                      | 513,986     |
| Distribution to shareholders                        |   |                 |                   |                                  |   | (1,237,400)          | (1,237,400) |
| Issuance of common stock                            | 97,636                                      | 244,090         |                   | 1,004,692                        |   |                      | 1,248,782   |
| Purchase of treasury stock                          | (40,445)                                    |                 | (679,696)         |                                  |   |                      | (679,696)   |
| Balances, December 31, 2015                         | 3,348,543                                   | 11,876,895      | (12,962,947)      | 9,460,008                        | (2,530,790)                                   | 37,340,395           | 43,183,561  |
| Net income  |   |                 |                   |                                  |   | 5,850,998            | 5,850,998   |
| Total other comprehensive loss                      |   |                 |                   |                                  | 194,589                                       |                      | 194,589     |
| Stock compensation expense                          |   |                 |                   | 440,536                          |   |                      | 440,536     |
| Tax benefit from exercise of employee stock options |   |                 |                   | 567,309                          |   |                      | 567,309     |
| Distribution to shareholders                        |   |                 |                   |                                  |   | (1,329,717)          | (1,329,717) |
| Issuance of common stock                            | 37,905                                      | 94,762          |                   | 299,776                          |   |                      | 394,538     |
| Cash settlement of stock options                    |   |                 |                   | (2,274,374)                      |   |                      | (2,274,374) |
| Purchase of treasury stock                          | (61,493)                                    |                 | (907,094)         |                                  |   |                      | (907,094)   |
| Balances, December 31, 2016                         | 3,324,955                                   | 11,971,657      | (13,870,041)      | 8,493,256                        | (2,336,201)                                   | 41,861,675           | 46,120,346  |

See accompanying Notes to Consolidated Financial Statements.



**Acme United Corporation and Subsidiaries**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| <b>For the years ended December 31,</b>  | <b>2016</b>  | <b>2015</b>  |
|--|--------------|--------------|
| Operating activities:  |              |              |
| Net income   | \$ 5,850,998 | \$ 4,793,525 |
| Adjustments to reconcile net income to net cash provided by operating activities |              |              |
| Depreciation   | 1,490,805    | 1,318,357    |
| Amortization   | 930,941      | 734,496      |
| Stock compensation expense   | 440,536      | 513,986      |
| Deferred income taxes  | 100,529      | (201,553)    |
| Changes in operating assets and liabilities                                      |              |              |
| Accounts receivable  | 499,940      | (16,948)     |
| Inventories  | (1,483,785)  | (2,599,728)  |
| Prepaid expenses and other current assets  | 314,824      | (123,267)    |
| Accounts payable   | 610,498      | (1,065,428)  |
| Other accrued liabilities  | 101,927      | (2,273,701)  |
| Total adjustments  | 3,006,214    | (3,713,786)  |
| Net cash provided by operating activities  | 8,857,211    | 1,079,738    |
| Investing activities:  |              |              |
| Purchase of property, plant and equipment  | (1,809,823)  | (1,756,732)  |
| Purchase of patents and trademarks   | (29,371)     | (161,877)    |
| Proceeds from sales of plant, property and equipment                             | —            | 4,980        |
| Acquisition of DMT   | (6,970,910)  | —            |
| Net cash used by investing activities  | (8,810,104)  | (1,913,629)  |
| Financing activities:  |              |              |
| Net borrowings of long-term debt   | 7,023,205    | 1,765,811    |
| Distributions to shareholders  | (1,332,757)  | (1,198,848)  |
| Cash settlement of stock options   | (2,274,374)  | —            |
| Excess Tax benefit from the exercise of stock options                            | 567,309      | —            |
| Purchase of treasury stock   | (907,094)    | (679,696)    |
| Issuance of common stock   | 394,538      | 1,248,782    |
| Net cash provided by financing activities  | 3,470,827    | 1,136,049    |
| Effect of exchange rate changes  | (33,056)     | (161,929)    |
| Net increase in cash and cash equivalents  | 3,484,880    | 140,231      |
| Cash and cash equivalents at beginning of year                                   | 2,425,891    | 2,285,660    |
| Cash and cash equivalents at end of year   | \$ 5,910,770 | \$ 2,425,891 |
| <b>Supplemental cash flow information</b>  |              |              |
| Cash paid for income taxes   | \$ 1,779,879 | \$ 2,412,008 |
| Cash paid for interest expense   | \$ 841,634   | \$ 563,837   |

See accompanying Notes to Consolidated Financial Statements.

## Acme United Corporation and Subsidiaries

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 1. Operations

The operations of Acme United Corporation (the “Company”) consist of three reportable segments. The operations of the Company are structured and evaluated based on geographic location. The three reportable segments operate in the United States (including Asian operations), Canada and Europe. Principal products across all segments are scissors, shears, knives, rulers, pencil sharpeners, first aid kits, and related products which are sold primarily to wholesale, contract and retail stationery distributors, office supply super stores, mass market retailers, industrial distributors, school supply distributors, drug store retailers, sporting goods stores, hardware chains and wholesale florists.

#### 2. Accounting Policies

**Estimates** – The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The most sensitive and significant accounting estimates relate to customer rebates, valuation allowances for deferred income tax assets, obsolete and slow-moving inventories, potentially uncollectible accounts receivable, pension liability and accruals for income taxes. Actual results could differ from those estimates.

**Principles of Consolidation** – The consolidated financial statements include the accounts of the Company and its subsidiaries, all of which are wholly owned by the Company. All significant intercompany accounts and transactions are eliminated in consolidation.

**Translation of Foreign Currency** – For foreign operations whose functional currencies are not U.S. dollars, assets and liabilities are translated at rates in effect at the end of the year; revenues and expenses are translated at average rates in effect during the year. Resulting translation adjustments are made directly to accumulated other comprehensive income. Foreign currency transaction gains and losses are recognized in operating results. Foreign currency transaction losses, which are included in other expense, net, were \$75,041 in 2016 and \$202,587 in 2015.

**Cash Equivalents** – Investments with an original maturity of three months or less, as well as time deposits and certificates of deposit that are readily redeemable at the date of purchase, are considered cash equivalents.

**Accounts Receivable** – Accounts receivable are shown less an allowance for doubtful accounts of \$152,357 at December 31, 2016 and \$104,760 at December 31, 2015.

**Inventories** – Inventories are stated at the lower of cost, determined by the first-in, first-out method, or market.

**Property, Plant and Equipment and Depreciation** – Property, plant and equipment is recorded at cost. Depreciation is computed by the straight-line method over the estimated useful lives of the assets, which range from 3 to 30 years.

**Intangible Assets** – Intangible assets with finite useful lives are recorded at cost upon acquisition, and amortized over the term of the related contract or useful life, as applicable. Intangible assets held by the Company with finite useful lives include patents and trademarks. Patents and trademarks are amortized over their estimated useful lives. The weighted average amortization period for intangible assets at December 31, 2016 was 8 years. The Company periodically reviews the values recorded for intangible assets to assess recoverability from future operations whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. At December 31, 2016 and 2015, the Company assessed the recoverability of its long-lived assets and believed that there were no events or circumstances present that would that would require a test of recoverability on those assets. As a result, there was no impairment of the carrying amounts of such assets and no reduction in their estimated useful lives.

Deferred Income Taxes – Deferred income taxes are provided for the differences between the financial statement and tax bases of assets and liabilities, and on operating loss carryovers, using tax rates in effect in years in which the differences are expected to reverse.

Revenue Recognition – Revenue is recognized when the price is fixed, the title and risks and rewards of ownership have passed to the customer, and when collection is reasonably assured. Depending on the contractual terms of each customer, revenue is recognized either at the time of shipment or upon delivery. When revenue is recorded, estimates of returns are made and recorded as a reduction of revenue. Customer rebates and incentives earned based on promotional programs in place, volume of purchases or other factors are also estimated at the time of revenue recognition and recorded as a reduction of that revenue.

Research and Development – Research and development costs (\$750,000 in 2016 and 690,000 in 2015) are expensed as incurred.

Shipping Costs – The costs of shipping product to our customers (\$5,388,481 in 2016 and \$4,597,663 in 2015) are included in selling, general and administrative expenses.

Advertising Costs – The Company expenses the production costs of advertising the first time that the related advertising takes place. Advertising costs (\$1,934,250 in 2016 and \$1,717,456 in 2015) are included in selling, general and administrative expenses.

Subsequent Events—The Company has evaluated events and transactions subsequent to December 31, 2016 through the date the consolidated financial statements were included in this Form 10-K and filed with the SEC.

Concentration – The Company performs ongoing credit evaluations of its customers and generally does not require collateral for the extension of credit. Allowances for credit losses are provided and have been within management's expectations. In 2016 and 2015, the Company had two customers that individually exceeded 10% of consolidated net sales. In 2016, net sales to these customers amounted to approximately 14% and 11%, respectively, and 12% for each in 2015.

#### **Recently Issued Accounting Standards**

In February 2016, the FASB issued guidance that will change the requirements for accounting for leases. The principal change under the new accounting guidance is that lessees under leases classified as operating leases will recognize a right-of-use asset and a lease liability. Current lease accounting does not require lessees to recognize assets and liabilities arising under operating leases on the balance sheet. Under the new guidance, lessees (including lessees under leases classified as finance leases and operating leases) will recognize a right-to-use asset and a lease liability on the balance sheet, initially measured as the present value of lease payments under the lease. Expense recognition and cash flow presentation guidance will be based upon whether the lease is classified as an operating lease or a finance lease (the classification criteria for distinguishing between finance leases and operating leases is substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current guidance). The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition approach for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements; the guidance provides certain practical expedients. The Company is currently evaluating this guidance to determine its impact on the Company's results of operations, cash flows and financial position.

In March 2016, the FASB issued ASU 2016-09 to improve the accounting for employee share-based payments. This standard simplifies several aspects of the accounting for share-based payment award transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows, as part of FASB's simplification initiative to reduce cost and complexity in accounting standards while maintaining or improving the usefulness of the information provided to the users of financial state. The Company is still evaluating whether the adoption of this standard on January 1, 2017 will have a material impact on its consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, "Balance Sheet Classification of Deferred Taxes" (Topic 740), which simplifies the presentation of deferred income taxes. This ASU requires that deferred tax assets and

liabilities be classified as non-current in a statement of financial position. ASU 2015-17 may be adopted either prospectively or retrospectively and is effective for reporting periods beginning after December 15, 2016, with early adoption permitted. The Company expects the adoption of this ASU to result in a reclassification of its net current deferred tax asset to the net non-current deferred tax asset on its consolidated balance sheet.

In August 2015, the FASB issued ASU No. 2015-14, which defers the effective date of ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) by one year. ASU 2015-14 is a comprehensive new revenue recognition model requiring a company to recognize revenue to depict the transfer of goods or services to a customer at an amount reflecting the consideration it expects to receive in exchange for those goods or services. As a result, the ASU is now effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, which for us is the first quarter of 2018. Earlier application is permitted for fiscal years beginning after December 15, 2016, including interim reporting periods within those years, which for us is the first quarter of 2017. We do not expect this ASU to have a material impact on our financial position, results of operations or disclosures.

In July 2015, the FASB issued ASU 2015-11, "Simplifying the Measurement of Inventory" (Topic 330). The new guidance changes the subsequent measurement of inventory from lower of cost or market to lower of cost and net realizable value. ASU 2015-11 should be applied on a prospective basis and is effective for the Company beginning in the first fiscal quarter of 2017. Early adoption is permitted. The Company does not expect the adoption of this guidance to have a material impact on its financial position, results of operations or cash flows.

### 3. Inventories

| Inventories consisted of: | December 31,  |               |
|---------------------------|---------------|---------------|
|                           | 2016          | 2015          |
| Finished goods            | \$ 33,971,922 | \$ 29,802,745 |
| Work in process           | 187,833       | 169,540       |
| Materials and supplies    | 3,078,106     | 5,535,306     |
|                           | \$ 37,237,861 | \$ 35,507,591 |

Inventories are stated net of valuation allowances for slow moving and obsolete inventory of \$677,253 as of December 31, 2016 and \$698,592 as of December 31, 2015.

### 4. Intangible Assets and Goodwill

| Intangible assets consisted of:         | December 31,  |               |
|---|---------------|---------------|
|   | 2016          | 2015          |
| First Aid Only Tradename, Customer List | \$ 8,910,010  | \$ 8,910,010  |
| DMT Tradename, Customer List            | 2,756,000     | —             |
| DMT Non-Compete                         | 183,000       | —             |
| Patents                                 | 2,271,980     | 2,242,844     |
| Trademarks                              | 663,698       | 663,698       |
| Pac-Kit Tradename, Customer List        | 1,500,000     | 1,500,000     |
| C-Thru, Customer List                   | 1,050,000     | 1,050,000     |
| Subtotal                                | 17,334,688    | 14,366,552    |
| Accumulated amortization                | 3,346,502     | 2,415,561     |
| Subtotal Intangible assets              | 13,988,186    | 11,950,991    |
| Goodwill                                | 3,948,235     | 1,406,000     |
|   | \$ 17,936,421 | \$ 13,356,991 |

Amortization expense for patents and trademarks for the years ended December 31, 2016, and 2015 were \$930,941 and \$734,496, respectively. The estimated aggregate amortization expense for each of the next five succeeding years, calculated on a similar basis, is as follows: 2017 – \$953,038; 2018 – \$932,247; 2019 – \$881,785; 2020 – \$877,164; and 2021 – \$875,339.

## 5. Other Accrued Liabilities

Other current and long-term accrued liabilities consisted of:

|                       | December 31, |              |
|-----------------------|--------------|--------------|
|                       | 2016         | 2015         |
| Customer rebates      | \$ 2,789,003 | \$ 3,168,756 |
| Remediation liability | 57,197       | 80,947       |
| Pension liability     | 205,071      | 359,216      |
| Accrued Compensation  | 1,192,822    | 355,476      |
| Dividend Payable      | 332,558      | 335,259      |
| Other                 | 1,094,439    | 1,361,339    |
|                       | \$ 5,671,090 | \$ 5,660,993 |

## 6. Pension and Profit Sharing

United States employees, hired prior to July 1, 1993, are covered by a funded, defined benefit pension plan. The benefits of this pension plan are based on years of service and the average compensation of the highest three consecutive years during the last ten years of employment. In December 1995, the Company's Board of Directors approved an amendment to the United States pension plan that terminated all future benefit accruals as of February 1, 1996, without terminating the pension plan.

The Company's funding policy with respect to its qualified plan is to contribute at least the minimum amount required by applicable laws and regulations. In 2016, the Company did not contribute to the plan.

The plan asset weighted average allocation at December 31, 2016 and December 31, 2015, by asset category, were as follows:

| Asset Category                 | 2016 | 2015 |
|--------------------------------|------|------|
| Equity Securities              | 65%  | 58%  |
| Fixed Income Securities        | 32%  | 37%  |
| Other Securities / Investments | 3%   | 5%   |
| Total                          | 100% | 100% |

The Company's investment policy for the pension plan is to minimize risk by balancing investments between equity securities and fixed income securities. Plan funds are invested in long-term obligations with a history of moderate to low risk.

As of December 31, 2015, equity securities in the pension plan included 10,000 shares of the Company's Common Stock, having a market value of \$174,000. As of December 31, 2016, the plan did not hold shares of the Company.

The pension plan asset information included below is presented at fair value. ASC 820 establishes a framework for measuring fair value and requires disclosures about assets and liabilities measured at fair

value. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three levels as follows:

- Level 1 – Inputs to the valuation methodology based on unadjusted quoted market prices in active markets that are accessible at the measurement date.
- Level 2 – Inputs to the valuation methodology that include quoted market prices that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly.
- Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The following tables present the pension plan assets by level within the fair value hierarchy as of December 31, 2016 and 2015:

| <b>2016</b>                             | <b>Level 1</b>    | <b>Level 2</b>      | <b>Level 3</b> | <b>Total</b>        |
|---|-------------------|---------------------|----------------|---------------------|
| Money Market Fund                       | \$ 19,327         | \$ 19,897           | \$ —           | \$ 39,224           |
| Acme United Common Stock                | —                 | —                   | —              | —                   |
| Equity Common and Collected Funds       | 131,737           | 705,523             | —              | 837,260             |
| Fixed Income Common and Collected Funds | 104,491           | 313,752             | —              | 418,243             |
| <b>Total</b>                            | <b>\$ 255,555</b> | <b>\$ 1,039,172</b> | <b>\$ —</b>    | <b>\$ 1,294,727</b> |

| <b>2015</b>                             | <b>Level 1</b>    | <b>Level 2</b>      | <b>Level 3</b> | <b>Total</b>        |
|---|-------------------|---------------------|----------------|---------------------|
| Money Market Fund                       | \$ 66,914         | \$ —                | \$ —           | \$ 66,914           |
| Acme United Common Stock                | 174,000           | —                   | —              | 174,000             |
| Equity Common and Collected Funds       | —                 | 652,135             | —              | 652,135             |
| Fixed Income Common and Collected Funds | —                 | 524,523             | —              | 524,523             |
| <b>Total</b>                            | <b>\$ 240,914</b> | <b>\$ 1,176,658</b> | <b>\$ —</b>    | <b>\$ 1,417,572</b> |

Other disclosures related to the pension plan follow:

|  | 2016           | 2015           |
|--|----------------|----------------|
| <b>Assumptions used to determine benefit obligation:</b>             |                |                |
| Discount rate  | 3.40%          | 3.50%          |
| Changes in benefit obligation:                                       |                |                |
| Benefit obligation at beginning of year                              | \$ (1,776,788) | \$ (1,904,377) |
| Interest cost  | (55,811)       | (59,348)       |
| Service cost   | (36,000)       | (25,000)       |
| Actuarial gain (loss)  | 99,019         | (62,677)       |
| Benefits and plan expenses paid                                      | 269,782        | 274,614        |
| Benefit obligation at end of year                                    | (1,499,798)    | (1,776,788)    |
| <b>Changes in plan assets:</b>                                       |                |                |
| Fair value of plan assets at beginning of year                       | 1,417,572      | 1,684,535      |
| Actual return on plan assets   | 146,937        | (22,349)       |
| Employer contribution  |                | 30,000         |
| Benefits and plan expenses paid                                      | (269,782)      | (274,614)      |
| Fair value of plan assets at end of year                             | 1,294,727      | 1,417,572      |
| Funded status  | \$ (205,071)   | \$ (359,216)   |
| <b>Amounts recognized in Accumulated Other Comprehensive Income:</b> |                |                |
| Net actuarial loss   | \$ 1,128,647   | \$ 1,423,319   |
| Prior service cost   | 2,168          | 2,711          |
| Total  | \$ 1,130,815   | \$ 1,426,030   |

Accrued benefits costs are included in other accrued liabilities (non-current).

|   | 2016       | 2015       |
|---|------------|------------|
| <b>Assumptions used to determine net periodic benefit cost:</b> |            |            |
| Discount rate   | 3.50%      | 3.23%      |
| Expected return on plan assets                                  | 6.00%      | 6.00%      |
| <b>Components of net benefit expense:</b>                       |            |            |
| Interest cost   | \$ 55,811  | \$ 59,348  |
| Service cost  | 36,000     | 25,000     |
| Expected return on plan assets                                  | (76,138)   | (92,620)   |
| Amortization of prior service costs                             | 543        | 9,155      |
| Amortization of actuarial loss                                  | 124,854    | 122,352    |
| Net periodic benefit cost                                       | \$ 141,070 | \$ 123,235 |

The Company employs a building block approach in determining the long-term rate of return for plan assets. Historical markets are studied and long-term historical relationships between equity securities and fixed income securities are preserved consistent with the widely-accepted capital market principle that assets with higher volatility generate higher returns over the long run. Our expected 6% long-term rate of return on plan assets is determined based on long-term historical performance of plan assets, current asset allocation and projected long-term rates of return.

The following table discloses the change recorded in other comprehensive income related to benefit costs:

|   | 2016         | 2015         |
|---|--------------|--------------|
| Balance at beginning of the year                | \$ 1,426,030 | \$ 1,379,890 |
| Change in net loss                              | (169,818)    | 177,647      |
| Amortization of actuarial loss                  | (124,854)    | (122,352)    |
| Amortization of prior service cost              | (543)        | (9,155)      |
| Change recognized in other comprehensive income | (295,215)    | 46,140       |
| Total recognized in other comprehensive income  | \$ 1,130,815 | \$ 1,426,030 |

The Company anticipates that in 2017, net periodic benefit cost will include approximately \$106,000 of net actuarial loss and \$1,000 of prior service cost.

The following benefits are expected to be paid:

|                   |            |
|-------------------|------------|
| 2017              | \$ 207,000 |
| 2018              | 187,000    |
| 2019              | 169,000    |
| 2020              | 152,000    |
| 2021              | 136,000    |
| Years 2022 – 2026 | 488,000    |

The Company also has a qualified, profit sharing plan covering substantially all of its United States employees. Annual Company contributions to this profit sharing plan are determined by the Company's Compensation Committee. For the years ended December 31, 2016 and 2015, the Company contributed 50% of employee's contributions, up to the first 6% contributed by each employee. Total contribution expense under this profit sharing plan was \$188,518 in 2016 and \$166,050 in 2015.

## 7. Income Taxes

The amounts of income tax expense (benefit) reflected in operations is as follows:

|                  | 2016         | 2015         |
|------------------|--------------|--------------|
| <b>Current:</b>  |              |              |
| Federal          | \$ 566,361   | \$ 1,304,253 |
| State            | (5,648)      | 164,913      |
| Foreign          | 984,469      | 553,259      |
|                  | 1,545,182    | 2,022,425    |
| <b>Deferred:</b> |              |              |
| Federal          | 83,290       | (196,476)    |
| State            | 17,233       | (5,077)      |
|                  | 100,523      | (201,553)    |
|                  | \$ 1,645,705 | \$ 1,820,872 |

The current state tax provision was comprised of taxes on income, the minimum capital tax and other franchise taxes related to the jurisdictions in which the Company's facilities are located.



A summary of United States and foreign income before income taxes follows:

|               | <b>2016</b>         | <b>2015</b>         | <b>2014</b>         |
|---------------|---------------------|---------------------|---------------------|
| United States | \$ 2,008,065        | \$ 3,256,251        | \$ 3,877,541        |
| Foreign       | 5,488,638           | 3,358,146           | 2,925,184           |
|               | <u>\$ 7,496,703</u> | <u>\$ 6,614,397</u> | <u>\$ 6,802,725</u> |

As discussed in Note 10 below, for segment reporting, Direct Import sales are included in the United States segment. However, the revenues are earned by our Hong Kong subsidiary and related income taxes are paid in Hong Kong whose rate approximates 16.5%. As such, income of the Asian subsidiary is included in the foreign income before taxes.

The following schedule reconciles the amounts of income taxes computed at the United States statutory rates to the actual amounts reported in operations:

|   | <b>2016</b>         | <b>2015</b>         |
|---|---------------------|---------------------|
| Federal income taxes at 34% statutory rate              | \$ 2,496,270        | \$ 1,878,464        |
| State and local taxes, net of federal income tax effect | 18,998              | 105,492             |
| Permanent items   | (25,077)            | 328,075             |
| Foreign tax rate difference                             | (919,038)           | (601,269)           |
| Change in deferred income tax valuation allowance       | 74,552              | 110,110             |
| Provision for income taxes                              | <u>\$ 1,645,705</u> | <u>\$ 1,820,872</u> |

The following summarizes deferred income tax assets and liabilities:

|  | <b>2016</b>         | <b>2015</b>         |
|--|---------------------|---------------------|
| <b>Deferred income tax liabilities:</b>                  |                     |                     |
| Plant, property and equipment                            | \$ 604,271          | \$ 536,759          |
|  | 604,271             | 536,759             |
| <b>Deferred income tax assets:</b>                       |                     |                     |
| Asset valuations   | 720,189             | 677,994             |
| Operating loss carryforwards and credits                 | 121,658             | 110,110             |
| Pension  | 227,681             | 189,920             |
| Foreign tax credit                                       | 186,504             | 186,504             |
| Other  | 593,140             | 753,219             |
|  | <u>1,849,172</u>    | <u>1,917,747</u>    |
| Net deferred income tax asset before valuation allowance | 1,244,901           | 1,380,988           |
| Valuation allowance                                      | (74,552)            | (110,110)           |
| Net deferred income tax asset                            | <u>\$ 1,170,349</u> | <u>\$ 1,270,878</u> |

In 2016, the Company evaluated its tax positions for years which remain subject to examination by major tax jurisdictions, in accordance with the requirements of ASC 740 and as a result concluded no adjustment was necessary. The Company files income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. The Company's evaluation of uncertain tax positions was performed for the tax years ended December 31, 2013 and forward, the tax years which remain subject to examination by major tax jurisdictions as of December 31, 2016.

In accordance with the Company's accounting policies, any interest and penalties related to uncertain tax positions are recognized as a component of income tax expense.

The Company provides deferred income taxes on foreign subsidiary earnings, which are not considered permanently reinvested. Earnings permanently reinvested would become taxable upon the sale or liquidation of a foreign subsidiary or upon the remittance of dividends. The Company plans to repatriate future earnings of its Canadian subsidiary and will provide for U.S. income taxes accordingly. Foreign subsidiary earnings of \$7,158,497 and \$3,157,020 are considered permanently reinvested as of December 31, 2016 and 2015, respectively, and no deferred income taxes have been provided on these foreign earnings. These unremitted foreign earnings are primarily related to the Hong Kong subsidiary, and there is no unrecognized deferred income tax liability for these permanently reinvested earnings.

Due to the uncertain nature of the realization of the Company's deferred income tax assets based on past performance of its German subsidiary and carry forward expiration dates, the Company has recorded a valuation allowance for the amount of deferred income tax assets which are not expected to be realized. This valuation allowance, all of which is related to deferred tax assets resulting from net operating losses of the Company's German subsidiary, is subject to periodic review, and, if the allowance is reduced, the tax benefit will be recorded in future operations as a reduction of the Company's tax expense.

## **8. Long-Term Debt and Shareholders' Equity**

On May 6, 2016, the Company amended its revolving credit loan agreement with HSBC Bank, N.A. The amended facility provides for borrowings of up to an aggregate of \$50 million at an interest rate of LIBOR plus 2.0%. In addition, the Company must pay a facility fee, payable quarterly, in an amount equal to two tenths of one percent (.20%) per annum of the average daily unused portion of the revolving credit line. All principal amounts outstanding under the agreement are required to be repaid in a single amount on May 6, 2019, the date the agreement expires; interest is payable monthly. Funds borrowed under the agreement may be used for working capital, acquisitions, general operating expenses, share repurchases and certain other purposes. Under the revolving loan agreement, the Company is required to maintain specific amounts of tangible net worth, a specified debt to net worth ratio and a fixed charge coverage ratio and must have annual net income greater than \$0, measured as of the end of each fiscal year. At December 31, 2016, the Company was in compliance with the covenants then in effect under its loan agreement.

Long term debt consists of borrowings under the Company's revolving loan agreement with HSBC Bank, N.A. As of December 31, 2016, \$32,935,858 was outstanding and \$17,064,142 was available for borrowing under the Company's revolving loan agreement.

During the twelve months ended December 31, 2016, the Company repurchased 61,493 shares of its Common Stock. As of December 31, 2016, 41,227 shares may be purchased in the future under the repurchase program announced in 2010.

## **9. Commitments and Contingencies**

The Company leases certain office, manufacturing and warehouse facilities and various equipment under non-cancelable operating leases. Total rent expense was \$1,227,341 and \$1,350,617 in 2016 and 2015, respectively. Minimum annual rental commitments under non-cancelable leases with remaining terms of one year or more as of December 31, 2016 are as follows: 2017 – \$1,207,410; 2018 – \$1,088,244; 2019 – \$918,549; 2020 – \$873,644; 2021 – \$437,668 and thereafter – \$0.

There are no pending material legal proceedings to which the Company is a party or, to the actual knowledge of the Company, contemplated by any governmental authority.

## 10. Segment Information

The Company reports financial information based on the organizational structure used by management for making operating and investment decisions and for assessing performance. The Company's reportable business segments include (1) United States; (2) Canada and (3) Europe. The financial results for the Company's Asian operations have been aggregated with the results of its United States operations to form one reportable segment called the "United States segment". Sales in the United States segment include both domestic sales as well as direct import sales. Each reportable segment derives its revenue from the sales of cutting devices, measuring instruments and first aid products for school, home, office, hardware, sporting goods and industrial use.

Domestic sales orders are filled from the Company's distribution centers in North Carolina, Washington and Massachusetts. The Company is responsible for the costs of shipping, insurance, customs clearance, duties, storage and distribution related to such products. Orders filled from the Company's inventory are generally for less than container-sized lots.

Direct Import sales are products sold by the Company's Asian subsidiary, directly to major U.S. retailers who take ownership of the products in Asia. These sales are completed by delivering product to the customers' common carriers at the shipping points in Asia. Direct Import sales are made in larger quantities than domestic sales, typically full containers. Direct Import sales represented approximately 17% and 18% of the Company's total net sales in 2016 and 2015, respectively.

The Chief Operating Decision Maker evaluates the performance of each operating segment based on segment revenues and operating income. Segment revenues are defined as total revenues, including both external customer revenue and inter-segment revenue. Segment operating earnings are defined as segment revenues, less cost of goods sold and operating expenses. Identifiable assets by segment are those assets used in the respective reportable segment's operations. Inter-segment amounts are eliminated to arrive at consolidated financial results.

The following table sets forth certain financial data by segment for the fiscal years ended December 31, 2016 and 2015:

### Financial data by segment:

| (000's omitted)                            | United States | Canada   | Europe   | Consolidated |
|--|---------------|----------|----------|--------------|
| <b>Year Ended December 31, 2016</b>        |               |          |          |              |
| Net sales                                  | \$ 110,793    | \$ 6,824 | \$ 6,957 | \$ 124,574   |
| Operating income                           | 7,769         | 568      | 105      | 8,442        |
| Assets                                     | 84,104        | 3,882    | 4,080    | 92,066       |
| Additions to property, plant and equipment | 1,737         | 7        | 44       | 1,789        |
| Depreciation and amortization              | 2,362         | 8        | 23       | 2,393        |
| <b>Year Ended December 31, 2015</b>        |               |          |          |              |
| Net sales                                  | \$ 96,622     | \$ 6,804 | \$ 6,385 | \$ 109,812   |
| Operating income                           | 7,147         | 56       | 144      | 7,347        |
| Assets                                     | 73,688        | 3,709    | 4,024    | 81,421       |
| Additions to property, plant and equipment | 1,720         | 19       | 17       | 1,757        |
| Depreciation and amortization              | 2,017         | 8        | 28       | 2,053        |

The following is a reconciliation of segment operating income to consolidated income before taxes:

|                                  | <b>2016</b> | <b>2015</b> |
|----------------------------------|-------------|-------------|
| Total operating income           | \$ 8,442    | \$ 7,347    |
| Interest expense, net            | 869         | 565         |
| Other expense, net               | 77          | 167         |
| Consolidated income before taxes | \$ 7,497    | \$ 6,614    |
| Net Income                       | \$ 5,851    | \$ 4,794    |

The table below presents revenue by geographic area. Revenues are attributed to countries based on location of the customer.

|                     | <b>2016</b> | <b>2015</b> |
|---------------------|-------------|-------------|
| <b>Revenues</b>     |             |             |
| United States       | \$ 109,823  | \$ 95,652   |
| International:      |             |             |
| Canada              | 6,824       | 6,804       |
| Europe              | 6,957       | 6,385       |
| Other               | 970         | 971         |
| Total International | \$ 14,751   | \$ 14,160   |
| Total Revenues      | \$ 124,574  | \$ 109,812  |

## 11. Stock Option Plans

The Company grants stock options under the 2012 Employee Stock Option Plan (the "2012 Employee Plan"). The Company also has two plans under which the Company no longer grants options but under which certain options remain outstanding: the 2002 Employee stock Option Plan and the 2005 Non-Salaried Director Stock Option Plan (the "2005 Director Plan").

The 2012 Employee Plan, which became effective April 23, 2012, provides for the issuance of incentive and nonqualified stock options at an exercise price equal to the fair market value of the Common Stock on the date the option is granted. The terms of the options granted are subject to the provisions of the 2012 Employee Plan. Options granted under the 2012 Employee Plan vest 25% one day after the first anniversary of the grant date and 25% one day after each of the next three anniversaries. As of December 31, 2016, the number of shares available for grant under the 2012 Employee Plan was 66,850. Under the terms of the Employee Plan, no option may be granted under that plan after the tenth anniversary of the adoption of the plan. Options outstanding under the Company's 2002 Employee Stock Option Plan have the same vesting schedule as the 2012 Employee Plan.

The 2005 Director Plan, as amended, provided for the issuance of stock options for up to a total of 180,000 shares of the Company's common stock to non-salaried directors. Under the Director Plan, Directors elected on April 25, 2005 and at subsequent Annual Meetings who have not received any prior grant under this or previous plans received an initial grant of an option to purchase 5,000 shares of Common Stock (the "Initial Option"). Each year, each elected Director not receiving an Initial Option received a 5,000 share option (the "Annual Option"). The Initial Option vests 25% on the date of grant and 25% on the anniversary of the grant date in each of the following 3 years. Each Annual Option becomes fully exercisable one day after the date of grant. The exercise price of each option granted equals the fair market value of the Common Stock on the date the option is granted, and expires ten (10) years from the date of grant. As provided in the Director Plan, no options may be granted under the Director Plan after the tenth anniversary of the adoption of the Plan, i.e., after April 25, 2015.

The Company has amended certain of its stock option plans for both employees and directors to permit options to be exercised on a net basis and receive either cash or shares of the Company's Common Stock. Specifically, optionees may, at the time of exercise of an option and subject to the consent of the Company, elect either (i) to receive from the Company cash in an amount equal to the number of shares of Common Stock subject to the option (or portion thereof) that is being exercised multiplied by the excess of (a) the fair market value per share over (b) the exercise price per share of the option ( a "net cash settlement"); or (ii) to make payment of the exercise price of the option by reduction in the number of shares of Common Stock otherwise deliverable upon exercise of such option by the number of shares having an aggregate fair market value equal to the total exercise price of the option (or portion thereof). In 2016, the Company paid a total of approximately \$2,274,000 to optionees who had elected a net cash settlement of their respective options.

A summary of changes in options issued under the Company's stock option plans follows:

|   | 2016      | 2015      | 2014      |
|---|-----------|-----------|-----------|
| Options outstanding at the beginning of the year                | 1,267,802 | 1,357,813 | 1,236,063 |
| Options granted   | 171,000   | 47,000    | 214,500   |
| Options forfeited   | (33,825)  | (39,375)  | (2,500)   |
| Options exercised   | (316,699) | (97,636)  | (90,250)  |
| Options outstanding at the end of the year                      | 1,088,278 | 1,267,802 | 1,357,813 |
| Options exercisable at the end of the year                      | 769,403   | 970,017   | 880,743   |
| Common stock available for future grants at the end of the year | 66,850    | 201,350   | 36,475    |

**Weighted average exercise price per share:**

|             |          |          |          |
|-------------|----------|----------|----------|
| Granted     | \$ 21.41 | \$ 18.90 | \$ 16.68 |
| Forfeited   | 15.03    | 15.65    | 14.22    |
| Exercised   | 10.99    | 12.79    | 12.62    |
| Outstanding | 14.18    | 12.46    | 12.35    |
| Exercisable | 12.29    | 11.72    | 11.53    |

A summary of options outstanding at December 31, 2016 is as follows:

| Range of Exercise Prices | Options Outstanding |   |                                 | Options Exercisable |                                 |
|--------------------------|---------------------|---|---------------------------------|---------------------|---------------------------------|
|                          | Number Outstanding  | Weighted-Average Remaining Contractual Life (Years) | Weighted-Average Exercise Price | Number Exercisable  | Weighted-Average Exercise Price |
| \$7.30 to \$10.10        | 214,038             | 4   | \$ 9.49                         | 214,038             | \$ 9.49                         |
| \$10.11 to \$12.14       | 221,865             | 5   | 10.85                           | 212,490             | 10.80                           |
| \$12.15 to \$14.68       | 218,000             | 5   | 13.49                           | 182,000             | 13.44                           |
| \$14.69 to \$16.98       | 216,375             | 6   | 16.35                           | 134,125             | 16.20                           |
| \$16.99 to \$21.49       | 218,000             | 9   | 20.84                           | 26,750              | 19.09                           |
|                          | 1,088,278           |   |                                 | 769,403             |                                 |

The weighted average remaining contractual life of all outstanding stock options is 6 years.

**Stock Based Compensation**

Stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which is generally the vesting period. The Company uses the Black- Scholes option pricing model to determine the fair value of employee and non-employee director stock options. The determination of the fair value of stock-based payment awards on the date of grant, using an option-pricing model, is affected by the Company's stock price as well as assumptions regarding a number of complex and subjective variables. These assumptions include estimating the length

of time employees will retain their vested stock options before exercising them (“expected term”), the estimated volatility of the Company’s Common Stock price over the expected term (“volatility”) and the number of options that will not fully vest in accordance with applicable vesting requirements (“forfeitures”).

The Company estimates the expected term of options granted by evaluating various factors, including the vesting period, historical employee information, as well as current and historical stock prices and market conditions. The Company estimates the volatility of its common stock by calculating historical volatility based on the closing stock price on the last day of each of the 60 months leading up to the month the option was granted. The risk-free interest rate that the Company uses in the option valuation model is the interest rate on U.S. Treasury zero-coupon bond issues with remaining terms similar to the expected term of the options granted. Historical information was the basis for calculating the dividend yield. The Company is required to estimate forfeitures at the time of grant and to revise those estimates in subsequent periods if actual forfeitures differ from those estimates. The Company used a mix of historical data and future assumptions to estimate pre-vesting option forfeitures and to record stock-based compensation expense only for those awards that are expected to vest. All stock-based payment awards are amortized over the requisite service periods of the awards, which are generally the vesting periods.

The assumptions used to value option grants for the twelve months ended December 31, 2016 and December 31, 2015 were as follows:

|                        | 2016         | 2015          |
|------------------------|--------------|---------------|
| Expected life in years | 5            | 5             |
| Interest rate          | 1.07 – 1.24% | 1.33 – 1.62%  |
| Volatility             | .236 – .258  | .234 – .252   |
| Dividend yield         | 1.6% – 2.0%  | 1.95% – 2.10% |

Total stock-based compensation recognized in the Company’s consolidated statements of operations for the years ended December 31, 2016 and 2015 was \$440,536 and \$513,986, respectively. At December 31, 2016, there was approximately \$867,624 of unrecognized compensation cost, adjusted for estimated forfeitures, related to non-vested stock-based payments granted to the Company’s employees. As of December 31, 2016, the remaining unamortized expense is expected to be recognized over a weighted average period of 3 years.

The weighted average fair value at the date of grant for options granted during 2016 and 2015 was \$4.05 and \$3.44 per option, respectively. The aggregate intrinsic value of outstanding options was \$12,395,486 at December 31, 2016. The aggregate intrinsic value of exercisable options was \$10,271,617 at December 31, 2016. The aggregate intrinsic value of options exercised during 2016 was \$4,633,306.

## 12. Earnings Per Share

The calculation of earnings per share follows:

|   | 2016         | 2015         |
|---|--------------|--------------|
| <b>Numerator:</b>                           |              |              |
| Net income                                  | \$ 5,850,998 | \$ 4,793,525 |
| <b>Denominator:</b>                         |              |              |
| Denominator for basic earnings per share:   |              |              |
| Weighted average shares outstanding         | 3,327,867    | 3,334,790    |
| Effect of dilutive employee stock options   | 249,956      | 352,546      |
| Denominator for dilutive earnings per share | 3,577,823    | 3,687,336    |
| Basic earnings per share                    | \$ 1.76      | \$ 1.44      |
| Dilutive earnings per share                 | \$ 1.64      | \$ 1.30      |

For 2016 and 2015, respectively, 203,000 and 47,000 stock options were excluded from diluted earnings per share calculations because they would have been anti-dilutive.

### 13. Accumulated Other Comprehensive (loss) income

The components of accumulated other comprehensive (loss) income follow:

|  | Foreign currency<br>translation<br>adjustment | Net prior service<br>credit and<br>actuarial losses | Total          |
|--|---|---|----------------|
| <b>Balances, December 31, 2014</b>                                     | \$ (751,765)                                  | \$ (895,332)  | \$ (1,647,098) |
| Change in net prior service credit and<br>actuarial losses, net of tax |   | (52,825)  | (52,825)       |
| Translation adjustment   | (830,867)                                     |   | (830,867)      |
| <b>Balances, December 31, 2015</b>                                     | \$ (1,582,632)                                | \$ (948,157)  | \$ (2,530,790) |
| Change in net prior service credit and<br>actuarial losses, net of tax |   | 284,145   | 284,145        |
| Translation adjustment   | (89,556)                                      |   | (89,556)       |
| <b>Balances, December 31, 2016</b>                                     | \$ (1,672,188)                                | \$ (664,012)  | \$ (2,336,201) |

### 14. Financial Instruments

The carrying value of the Company's bank debt is a reasonable estimate of fair value because of the nature of its payment terms and maturity.

### 15. Quarterly Data (unaudited)

Quarters (000's omitted, except per share data)

| 2016                       | First     | Second    | Third     | Fourth    | Total      |
|----------------------------|-----------|-----------|-----------|-----------|------------|
| Net sales                  | \$ 25,288 | \$ 40,997 | \$ 31,913 | \$ 26,377 | \$ 124,574 |
| Cost of goods sold         | 16,103    | 26,302    | 20,050    | 16,564    | 79,019     |
| Net income                 | 565       | 3,267     | 1,473     | 545       | 5,851      |
| Basic earnings per share   | \$ 0.17   | \$ 0.98   | \$ 0.44   | \$ 0.16   | \$ 1.76    |
| Diluted earnings per share | \$ 0.16   | \$ 0.91   | \$ 0.40   | \$ 0.15   | \$ 1.64    |
| Dividends per share        | \$ 0.10   | \$ 0.10   | \$ 0.10   | \$ 0.10   | \$ 0.40    |
| 2015                       | First     | Second    | Third     | Fourth    | Total      |
| Net sales                  | \$ 22,837 | \$ 33,954 | \$ 29,903 | \$ 23,118 | \$ 109,812 |
| Cost of goods sold         | 14,402    | 21,419    | 19,578    | 14,852    | 70,251     |
| Net income                 | 436       | 2,710     | 1,208     | 440       | 4,794      |
| Basic earnings per share   | \$ 0.13   | \$ 0.82   | \$ 0.36   | \$ 0.12   | \$ 1.44    |
| Diluted earnings per share | \$ 0.12   | \$ 0.74   | \$ 0.33   | \$ 0.11   | \$ 1.30    |
| Dividends per share        | \$ 0.09   | \$ 0.09   | \$ 0.09   | \$ 0.10   | \$ 0.37    |

Earnings per share were computed independently for each of the quarters presented. Therefore, the sum of the four quarterly earnings per share amounts may not necessarily equal the earnings per share for the year.

### 16. Sale of Property

On April 7, 2014, the Company sold its Fremont, NC distribution facility for \$850,000 in cash. The facility originally served as a manufacturing site for the Company's scissors and rulers. The Company hired an independent environmental consulting firm to conduct environmental studies in order to identify the extent of the environmental contamination on the property and to develop a remediation plan. As a result of those studies and the estimates prepared by the independent environmental consulting firm, and in conjunction

with the sale of the property, the Company recorded a liability of \$300,000 in the second quarter of 2014, related to the remediation of the property. The accrual includes the total estimated costs of remedial activities and post-remediation operating and maintenance costs.

Remediation work on the Fremont project began in the third quarter of 2014 and was completed in 2015. In addition to the remediation work, the Company, with the assistance of its independent environmental consulting firm, must continue to monitor contaminant levels on the property to ensure they comply with set governmental standards. The Company expects that the monitoring period will last a period of five years from the completion of the remediation and be complete by the end of 2020.

The change in the accrual for environmental remediation, which is included in other accrued liabilities on the accompanying consolidated balance sheets, for the twelve months ended December 31, 2016 follows (in thousands):

|             | Balance at<br>December 31, 2015 | Payments | Balance at<br>December 31, 2016 |
|-------------|---------------------------------|----------|---------------------------------|
| Fremont, NC | \$ 80                           | \$ (23)  | \$ 57                           |
| Total       | \$ 80                           | \$ (23)  | \$ 57                           |

## 17. Business Combinations

On February 1, 2016, the Company acquired the assets of Vogel Capital, Inc., d/b/a Diamond Machining Technology (DMT) for \$7.0 million in cash. DMT products are leaders in sharpening tools for knives, scissors, chisels, and other cutting tools. The DMT products use finely dispersed diamonds on the surfaces of sharpeners. The acquired assets include over 50 patents and trademarks.

The purchase price was allocated to assets acquired and liabilities assumed as follows (in thousands):

### Assets:

|                     |          |
|---------------------|----------|
| Accounts Receivable | \$ 1,145 |
| Inventory           | 280      |
| Equipment           | 262      |
| Prepaid expenses    | 176      |
| Intangible Assets   | 5,481    |

|              |          |
|--------------|----------|
| Total assets | \$ 7,344 |
|--------------|----------|

### Liabilities

|                  |        |
|------------------|--------|
| Accounts Payable | \$ 192 |
| Accrued Expense  | 181    |

|                   |        |
|-------------------|--------|
| Total liabilities | \$ 373 |
|-------------------|--------|

Net sales from the date of acquisition through December 31, 2016 attributable to DMT products were approximately \$5.6 million. Net income from the date of acquisition through December 31, 2016 attributable to DMT products was approximately \$800,000.

Assuming DMT was acquired on January 1, 2016, unaudited proforma combined net sales for the twelve months ended December 31, 2016 for the Company would have been approximately \$125.2 million. Unaudited proforma combined net income for the twelve months ended December 31, 2016 for the Company would have been approximately \$5.9 million.

Assuming DMT was acquired on January 1, 2015, unaudited proforma combined net sales for the twelve months ended December 31, 2015, for the Company would have been approximately \$115.3 million. Unaudited proforma combined net income for the twelve months ended December 31, 2015 for the Company would have been approximately \$5.3 million.



## **18. Subsequent Event**

On February 1, 2017 the Company announced that it had acquired assets of Spill Magic, Inc., for \$7.2 million in cash. The Spill Magic products are leaders in absorbents that encapsulate spills into dry powders that can be safely disposed. Many large retail chains use its products to remove liquids from broken glass containers, oil and gas spills, bodily fluids, and solvents. Its easy-to-use and environmentally friendly products permanently absorb the spills, leaving the floors underneath dry and reducing injuries from falls. Spill Magic also sells spill clean-up kits and blood borne pathogen kits for the safety market.

The acquired assets include inventory, accounts receivable and fixed assets. Spill Magic is located in Santa Ana, California and Smyrna, Tennessee, and began operations in 1995. The company employed 22 people all of whom the Company retained.

## **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

**To the Audit Committee of the  
Board of Directors and Shareholders of  
Acme United Corporation**

We have audited the accompanying consolidated balance sheets of Acme United Corporation and Subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income, changes in stockholders' equity, and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We 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 consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Acme United Corporation and Subsidiaries, as of December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ Marcum LLP

Marcum LLP  
New Haven, Connecticut  
March 10, 2017

## **Item 9. Changes In and Disagreements with Accountants on Accounting and Financial Disclosure**

There have been no disagreements with accountants related to accounting and financial disclosures in 2016.

## **Item 9A. Controls and Procedures**

### **Evaluation of Internal Controls and Procedures**

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures as required by Exchange Act Rule 13a-15(b) as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures are effective.

### **Management's Report on Internal Control over Financial Reporting**

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. The Company's internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) 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.

Any system of internal control, no matter how well designed, has inherent limitations, including the possibility that a control can be circumvented or overridden and misstatements due to error or fraud may occur and not be detected in a timely manner. Also, because of changes in conditions, internal control effectiveness may vary over time. Accordingly, even an effective system of internal control will provide only reasonable assurance with respect to financial statement preparation.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. In making this assessment, management used the criteria set forth in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control-Integrated Framework." Based on management's assessment using the COSO criteria, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2016.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit the Company to provide only management's report in this Annual Report.

### **Changes in Internal Control over Financial Reporting**

During the quarter ended December 31, 2016, there were no changes in the Company's internal control over financial reporting that materially affected, or was reasonably likely to materially affect, our internal control over financial reporting.

## **Item 9B. Other Information**

None.

## Part III

### Item 10. Directors, Executive Officers and Corporate Governance

The following table sets forth certain information with respect to the directors and executive officers of the Company. All directors of the Company hold office until the next annual meeting of the shareholders or until their successors have been elected and qualified. Executive officers are elected by the Board of Directors to hold office until their successors are elected and qualified.

| Name                    | Age | Position Held with Company                                       |
|-------------------------|-----|--|
| Walter C. Johnsen       | 66  | Chairman of the Board and Chief Executive Officer                |
| Brian S. Olschan        | 60  | President, Chief Operating Officer and Director                  |
| Paul G. Driscoll        | 56  | Vice President, Chief Financial Officer, Secretary and Treasurer |
| Rex L. Davidson         | 67  | Director   |
| Richmond Y. Holden, Jr. | 63  | Director   |
| Susan H. Murphy         | 65  | Director   |
| Stevenson E. Ward III   | 71  | Director   |

**Walter C. Johnsen** has served as Chairman of the Board and Chief Executive Officer of the Company since January 1, 2007; President and Chief Executive Officer of the Company from November 30, 1995 to December 31, 2006. Mr. Johnsen previously served as Vice Chairman and a principal of Marshall Products, Inc., a medical supply distributor. Mr. Johnsen has served on the Board of TOMI Environmental Solutions, Inc., a publicly traded company, since February 1, 2016. Mr. Johnsen's qualifications to serve on the Board include the in-depth knowledge of all facets of the Company's business which he has gained during his more than fifteen years of service as the Company's Chief Executive Officer.

**Brian S. Olschan** has served as President and Chief Operating Officer of the Company since January 1, 2007; Executive Vice President and Chief Operating Officer of the Company from January 25, 1999 to December 31, 2006; Senior Vice President—Sales and Marketing of the Company from September 12, 1996 to January 24, 1999; Mr. Olschan previously served as Vice President and General Manager of the Cordset and Assembly Business of General Cable Corporation, an electrical wire and cable manufacturer. Mr. Olschan's qualifications to serve on the Board include his detailed knowledge of the Company's operations which he has gained in his capacity as a member of senior management for more than eleven years, including as Chief Operating Officer since January 1999 and President since January 2007.

**Paul G. Driscoll** has served as Vice President and Chief Financial Officer, Secretary and Treasurer since October 2, 2002. Mr. Driscoll joined Acme as Director of International Finance on March 19, 2001. From 1997 to 2001, he was employed by Ernest and Julio Gallo Winery, including as Director of Finance and Operations in Japan. Prior to Gallo he served in several increasingly responsible finance positions in Sterling Drug Inc. in New York City and Sanofi S.A. in France.

**Rex L. Davidson** has served as director since 2006. Executive Director of the Helms Fund since 2013. The Helms Fund provides "gap financing" to socially responsible business ventures for capital expenditures. Additionally, since 2009, Mr. Davidson has served as President of Rex Davidson Associates, LLC, a management consulting service, and Executive Director of Las Cumbres Community Services, which provides developmental disability and mental health services to children, adults and families in Northern New Mexico. From 1982 to 2009, he served as President and Chief Executive Officer of Goodwill Industries of Greater New York and Northern New Jersey, Inc., and President of Goodwill Industries Housing Corporation. Mr. Davidson's qualifications to serve on the Board include significant management experience at the highest level, having been responsible for the management of Goodwill Industries, an organization with over 2,000 employees and revenues in excess of \$100 million. Mr. Davidson's experience in the areas of compensation of personnel at all levels, his experience relating to retail matters, such as retail trends and pricing, and diversity policies are of significant benefit to the Company.

**Richmond Y. Holden, Jr.** has served as director since 1998. Mr. Holden served as President and CEO of INgagementHub, a cloud based Marketing SaaS platform, from January 2015 through early 2016; he continues to

serve as a senior advisor to the company. In 2007, Mr. Holden joined School Specialty, Inc., a distributor of school supplies, equipment and curriculum products. He last served as Executive Vice President of School Specialty, Inc., and President of the Curriculum Group, a division of School Specialty Inc., 2013- December 2014. He was President of Educational Resources, a division of School Specialty, Inc., from 2010 to 2013. He served as Chairman and Chief Executive Officer of J.L. Hammett Co., a reseller of educational, curriculum, equipment, and products from 1992 to 2006. Commencing in 2007, Mr. Holden served on the Board of Directors of Software Secure, Incorporated, a privately-held company headquartered in Newton, MA, which focused on secure online educational testing technology, until its sale in late 2016. He has served on the Board of Directors of Codman Academy Charter Public School in Boston MA since 2012. The qualifications of Mr. Holden to serve on the Board of the Company include his substantial senior executive management experience of large complex companies in the educational markets. In particular, as a result of his experience with School Specialty Inc., then a \$650 million publicly held reseller of educational products, Mr. Holden has broad knowledge of educational markets and operational matters relating to developmental strategy, finance, marketing, sales, technology, sourcing, pricing and distribution.

**Susan H. Murphy** has served as director since 2003. Vice President Emerita, Cornell University, from which Dr. Murphy retired in 2016 after a 38-year career, commencing in 1978. She served as Dean of Admissions and Financial Aid from 1985 to 1994; Vice President of Student and Academic Services from 1994 to June 2015, and thereafter she worked in Alumni Affairs and Development until her retirement. In 2013, Dr. Murphy became a member of the Board of Trustees of Adelphi University, and, since July 2016, has served as Vice Chair of its Board of Trustees. She also serves on the Board of Directors for Kendal at Ithaca, a not-for-profit continuing care retirement community (since April 2014); Tompkins County Community Foundation (since January 2015); and Let's Get Ready, an organization which provides low-income high school students with support services to help them gain admission to and graduate from college (since September 2016). Dr. Murphy received a Ph.D. in Educational Administration from Cornell University. Dr. Murphy has broad senior management level experience in a large, complex organization. In particular, her experience in employee compensation matters and the development and implementation of diversity policies is helpful to the Company.

**Stevenson E. Ward III** has served as director since 2001. Mr. Ward served as Vice President and Chief Financial Officer of Triton Thalassic Technologies, Inc. from 2000 until his retirement in 2014. Triton's technology controls and inactivates pathogens in the healthcare and industrial industries. From 1998 through 2000, Mr. Ward served as Senior Vice President-Administration of Sanofi-Synthelabo, Inc., a major multinational pharmaceutical company. He served as Executive Vice President (1996-1998), responsible for legal, tax, treasury, employee benefits and other functions, and Chief Financial Officer (1994-1996) of Sanofi, Inc., the North American holding company for Sanofi. He also served as Vice President-Finance and Administration, Pharmaceutical Group, Sterling Winthrop, Inc. (1992-1994). Prior to joining Sterling, he was employed by General Electric Company in management positions in Purchasing, Corporate Audit and Finance. Mr. Ward's qualifications for service on the Board include his extensive experience in senior executive level positions in finance, corporate audit and administration at two Fortune 100 multinational corporations. He also holds a Masters in Business Administration (MBA) degree.

## Code of Conduct

The Company has adopted a Code of Conduct that is applicable to its employees, including the Chief Executive Officer, Chief Financial Officer and Controller. The Code of Conduct is available in the investor relations section on the Company's website at [www.acmeunited.com](http://www.acmeunited.com)

If the Company makes any substantive amendments to the Code of Conduct which apply to its Chief Executive Officer, Chief Financial Officer or Controller, or grants any waiver, including any implicit waiver, from a provision of the Code of Conduct to the Company's executive officers, the Company will disclose the nature of the amendment or waiver on its website.

Information regarding compliance with Section 16(a) beneficial ownership reporting requirements and certain corporate governance matters is incorporated herein by reference to the sections entitled (i) "Compliance with Section 16(a) of the Securities Exchange Act of 1934", (ii) "Nominations for Directors", and (iii) "Audit Committee" contained in the Company's Proxy Statement to be filed with the Securities and Exchange Commission in connection with its 2017 Annual Meeting of Shareholders.

## **Item 11. Executive Compensation**

Information with respect to executive compensation is incorporated herein by reference to the section entitled "Executive Compensation" contained in the Company's Proxy Statement to be filed with the SEC in connection with the Company's 2017 Annual Meeting of Shareholders.

## **Item 12. Security Ownership of Certain Beneficial Owners and Management**

Information regarding security ownership of certain beneficial owners, directors and executive officers is incorporated herein by reference to the information in the section entitled "Security Ownership of Directors and Officers" contained in the Company's Proxy Statement to be filed with the SEC in connection with its 2017 Annual Meeting of Shareholders.

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

Information regarding certain relationships and related transactions is incorporated herein by reference to the information in the section entitled "Certain Relationships and Related Transactions" contained in the Company's Proxy Statement to be filed with the SEC in connection with its 2017 Annual Meeting of Shareholders.

Information regarding director independence is incorporated herein by reference to the section entitled "Independence Determinations" contained in the Company's Proxy Statement to be filed with the Securities and Exchange Commission in connection with the Company's 2017 Annual Meeting of Shareholders.

## **Item 14. Principal Accounting Fees and Services**

Information regarding principal accountant fees and services is incorporated herein by reference to the section entitled "Fees to Auditors" contained in the Company's Proxy Statement to be filed with the SEC in connection with its 2017 Annual Meeting of Shareholders.

## Part IV

### **Item 15. Exhibits and Financial Statement Schedules**

(a)(1) Financial Statements.

- Consolidated Balance Sheets
- Consolidated Statements of Operations
- Consolidated Statements of Changes in Stockholders' Equity
- Consolidated Statements of Cash Flows
- Notes to Consolidated Financial Statements
- Report of Independent Registered Public Accounting Firm

(a)(2) Financial Statement Schedules

- Schedules other than those listed above have been omitted because of the absence of conditions under which they are required or because the required information is presented in the Financial Statements or Notes thereto.

(a)(3) The exhibits listed under Item 15(b) are filed or incorporated by reference herein.

(b) Exhibits.

The exhibits listed below are filed as part of this Annual Report on Form 10-K. Certain of the exhibits, as indicated, have been previously filed and are incorporated herein by reference.

| <b>Exhibit No.</b> | <b>Identification of Exhibit</b>   |
|--------------------|--|
| 2                  | Asset Purchase Agreement with First Aid Only, Inc. dated as of June 2, 2014 <sup>(1)</sup>   |
| 3(i)               | Certificate of Organization of the Company <sup>(2)</sup><br>Amendment to Certificate of Organization of Registrant dated September 24, 1968 <sup>(2)</sup><br>Amendment to Certificate of Incorporation of the Company dated April 27, 1971 <sup>(3)</sup><br>Amendment to Certificate of Incorporation of the Company dated June 29, 1971 <sup>(3)</sup> |
| 3(ii)              | Bylaws <sup>(11)</sup>   |
| 4                  | Specimen of Common Stock certificate <sup>(3)</sup>  |
| 10.1               | Non-Salaried Director Stock Option Plan dated April 22, 1996* <sup>(4)</sup>   |
| 10.1(a)            | Amendment No. 1 to the Non-Salaried Director Stock Option Plan <sup>*(5)</sup>   |
| 10.1(b)            | Amendment No. 2 to the Non-Salaried Director Stock Option Plan <sup>*(6)</sup>   |
| 10.3               | 2002 Acme United Employee Stock Option Plan as amended <sup>(12)</sup>   |
| 10.4               | Severance Pay Plan dated September 28, 2004* <sup>(15)</sup>   |
| 10.5(a)            | Salary Continuation Plan dated September 28, 2004, as amended <sup>(14)*</sup>   |
| 10.6               | 2005 Non-Salaried Director Stock Option Plan, amended <sup>(13)</sup>  |
| 10.8               | Deferred Compensation Plan dated October 2, 2007* <sup>(16)</sup>  |
| 10.9               | 2012 Acme United Employee Stock Option Plan <sup>(17)</sup>  |
| 10.10(a)           | Revolving Loan Agreement with HSBC, dated April 5, 2012 <sup>(18)</sup>  |
| 10.10(b)           | Amendment No. 1 to Revolving Loan Agreement with HSBC Dated <sup>(19)</sup>  |
| 10.10(c)           | Amended and restated note  |
| 10.10(d)           | Amendment No. 2 to Revolving Loan Agreement with HSBC dated October 2013   |
| 10.11              | Change in Control Plan as amended dated February 24, 2011* <sup>(20)</sup>   |
| 21                 | Subsidiaries of the Registrant   |
| 23.1               | Consent of MARCUM LLP, Independent Registered Public Accounting Firm   |
| 31.1               | Certification of Walter Johnsen pursuant to Rule 13a-14(a) and 15d-14(a) and Section 302 of the Sarbanes-Oxley Act of 2002   |
| 31.2               | Certification of Paul Driscoll pursuant to Rule 13a-14(a) and 15d-14(a) and Section 302 of the Sarbanes-Oxley Act of 2002  |
| 32.1               | Certification of Walter Johnsen pursuant to Section 906 of the Sarbanes-Oxley Act of 2002  |
| 32.2               | Certification of Paul Driscoll pursuant to Section 906 of the Sarbanes-Oxley Act of 2002   |

\* Indicates a management contract or a compensatory plan or arrangement

<sup>(1)</sup> Previously filed as an Exhibit to the Company's form 8-K/A filed on August 19, 2014.

<sup>(2)</sup> Previously filed in S-1 Registration Statement No. 230682 filed with the Commission on November 7, 1968 and amended by Amendment No. 1 on December 31, 1968 and by Amendment No. 2 on January 31, 1969.

<sup>(3)</sup> Previously filed as an exhibit to the Company's Form 10-K filed in 1971.

<sup>(4)</sup> Previously filed in the Company's Form S-8 Registration Statement No. 333-26739 filed with the Commission on May 9, 1997.

<sup>(5)</sup> Previously filed in the Company's Form S-8 Registration Statement No. 333-84505 filed with the Commission on August 4, 1999.

<sup>(6)</sup> Previously filed in the Company's Form S-8 Registration Statement No. 333-70348 filed with the Commission on September 21, 2000.

<sup>(7)</sup> Previously filed as an exhibit to the Company's Proxy Statement filed on March 29, 1996.

<sup>(8)</sup> Previously filed in the Company's Form S-8 Registration Statement No. 333-26737 filed with the Commission on May 9, 1997.

<sup>(9)</sup> Previously filed in the Company's Form S-8 Registration Statement No. 333-84499 filed with the Commission on August 4, 1999.

<sup>(10)</sup> Previously filed in the Company's Form S-8 Registration Statement No. 333-70346 filed with the Commission on September 27, 2001.

<sup>(11)</sup> Previously filed in the Company's form 8-K filed on March 3, 2006.

<sup>(12)</sup> Previously filed in the Company's Proxy statement for the 2005 Annual Meeting of Shareholders.

<sup>(13)</sup> Previously filed in the Company's Proxy Statement filed on March 29, 2005. This plan expired in 2015.

<sup>(14)</sup> Previously filed in the Company's form 8-K filed on December 21, 2010.

<sup>(15)</sup> Previously filed as an exhibit to the Company's Form 10-K filed on March 17, 2005.



<sup>(16)</sup> Previously filed as an exhibit to the Company's Form 10-K filed on March 12, 2008.

<sup>(17)</sup> Previously filed as an exhibit to the Company's Form 10-Q filed on April 14, 2012.

<sup>(18)</sup> Previously filed as an exhibit to the Company's Form 10-Q filed on May 10, 2013.

<sup>(19)</sup> Previously filed as an exhibit to the Company's Form 10-k filed on March 6, 2013.

<sup>(20)</sup> Previously filed as an exhibit to the Company's Form 10-k filed on March 11, 2011.

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, on March 10, 2017.

**ACME UNITED CORPORATION**  
(Registrant)

| <b>Signatures</b>   | <b>Titles</b>   |
|---|---|
| <u>/s/ Walter C. Johnsen</u><br>Walter C. Johnsen             | <i>Chairman and Chief Executive Officer</i>                             |
| <u>/s/ Brian S. Olschan</u><br>Brian S. Olschan               | <i>President, Chief Operating Officer and Director</i>                  |
| <u>/s/ Paul G. Driscoll</u><br>Paul G. Driscoll               | <i>Vice President, Chief Financial Officer, Secretary and Treasurer</i> |
| <u>/s/ Rex Davidson</u><br>Rex Davidson                       | <i>Director</i>   |
| <u>/s/ Richmond Y. Holden, Jr.</u><br>Richmond Y. Holden, Jr. | <i>Director</i>   |
| <u>/s/ Susan H. Murphy</u><br>Susan H. Murphy                 | <i>Director</i>   |
| <u>/s/ Stevenson E. Ward III</u><br>Stevenson E. Ward III     | <i>Director</i>   |

## EXHIBIT 21

### PARENTS AND SUBSIDIARIES

The Company was organized as a partnership in 1867 and incorporated in 1882 under the laws of the State of Connecticut as The Acme Shear Company. The corporate name was changed to Acme United Corporation in 1971.

There is no parent of the registrant.

Registrant has the following subsidiaries, all of which are wholly owned by the registrant:

| <b>Name</b>                             | <b>Country of Incorporation</b> |
|---|---------------------------------|
| Acme United Limited                     | Canada                          |
| Acme United Europe GmbH                 | Germany                         |
| Acme United (Asia Pacific) Limited      | Hong Kong                       |
| Acme United China Limited               | China                           |
| Acme United Netherlands Cooperatie U.A. | Netherlands                     |

All subsidiaries are active and included in the Company's consolidated financial statements included in this Form 10-K.

## EXHIBIT 23.1

### Consent of Marcum LLP, Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements of Acme United Corporation on Form S-8 (File Nos. 333-206440, 333-198220, 333-190623, 333-183351, 333-176314, 333-168801, 333-161392, 333-145516, 333-126478, 333-70348, 333-70346, 333-84505, 333-84509, 333-84499, 333-26739, and 333-26737) of our report dated March 10, 2017, with respect to our audits of the consolidated financial statements of Acme United Corporation and Subsidiaries as of December 31, 2016 and 2015 and for the years then ended, which report is included in this Annual Report on Form 10-K of Acme United Corporation for the year ended December 31, 2016.

/s/ Marcum LLP

Marcum LLP  
New Haven, Connecticut  
March 10, 2017

## EXHIBIT 31.1

### CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of Acme United Corporation (the "Company") hereby certifies to my knowledge that the Company's annual report on Form 10-K for the annual period ended December 31, 2016 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be a part of the Report or "filed" for any purpose whatsoever.

By /s/ Walter C. Johnsen  
Walter C. Johnsen  
Chairman and Chief Executive Officer

Dated: March 10, 2017

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Acme United Corporation and will be retained by Acme United Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

## EXHIBIT 31.2

### CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of Acme United Corporation (the "Company") hereby certifies to my knowledge that the Company's annual report on Form 10-K for the annual period ended December 31, 2016 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be a part of the Report or "filed" for any purpose whatsoever.

By /s/ Paul G. Driscoll  
Paul G. Driscoll  
Vice President and Chief Financial Officer

Dated: March 10, 2017

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Acme United Corporation and will be retained by Acme United Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

## EXHIBIT 32.1

### CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, WALTER C. JOHNSEN, certify that:

I have reviewed this annual report on Form 10-K of Acme United Corporation;

Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

- (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By /s/ Walter C. Johnsen

Walter C. Johnsen  
Chairman and Chief Executive Officer

Dated: March 10, 2017

## EXHIBIT 32.2

### CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, PAUL G. DRISCOLL, certify that:

I have reviewed this Annual Report on Form 10-K of Acme United Corporation;

Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

- (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By     /s/ Paul G. Driscoll    

Paul G. Driscoll  
Vice President and Chief Financial Officer

Dated: March 10, 2017

## Officers

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Walter C. Johnsen  
*Chairman of the Board and Chief Executive Officer*

Brian S. Olschan  
*President, Chief Operating Officer and Director*

Paul G. Driscoll  
*Vice President and Chief Financial Officer*

Larry H. Buchtman  
*Vice President of Technology*

## Board of Directors

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Walter C. Johnsen  
*Chairman of the Board and Chief Executive Officer, Acme United Corporation*

Brian S. Olschan  
*President, Chief Operating Officer and Director, Acme United Corporation*

Rex L. Davidson  
*Director*

Richmond Y. Holden, Jr.  
*Director*

Susan H. Murphy  
*Director*

Stevenson E. Ward III  
*Director*

## Key Management

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Chris Alagno, *Vice President and General Manager, Westcott*

Lisa Apostol, *Vice President of Sales*

Vernon Bagley, *Vice President of Corporate Sales*

Georg Bettin, *Managing Director, Europe*

Richard Constantine,  
*Vice President and General Manager, Clauss and Camillus*

Michael Donigian,  
*Vice President of Sales, Hardware and Sporting Goods*

Scott Dow, *Vice President of Sales, Retail*

William Dossman, *Vice President and Chief Information Officer*

Jodi Farina, *Vice President of Marketing, First Aid*

Ben George, *Vice President of Operations*

Kellie Heard, *Vice President of Sales*

John Hickey, *Vice President of Operations and Supply Chain*

Karen Lazoff Milinkovich,  
*Vice President of Sales, Commercial Office Product Sales*

Ian Moreau, *Vice President of Sales, Industrial*

Y.B. Pek, *Senior Vice President and General Manager, Asia Pacific*

Patrick Smeraldi, *Vice President of Information Technology*

Vicky Sparks, *Vice President of Sales, Mass Market*

Scott Torres, *Vice President and Controller*

John Ward, *General Manager, Canada*

## More Information

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### Corporate Office

Acme United Corporation

55 Walls Drive

Fairfield, CT 06824

USA

### Transfer Agent

American Stock Transfer & Trust Company

59 Maiden Lane, Plaza Level

New York, NY 10005

USA

### Counsel

Brody Wilkinson PC

Southport, CT

USA

### Stock Listing

NYSE MKT

Symbol: ACU

### Auditor

Marcum LLP

Hartford, CT

USA

### Annual Meeting

Will be held at 11:00 am on

Monday, April 24, 2017 at

The Cornell Club

6 East 44<sup>th</sup> Street

New York, NY 10017

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