



# KĀDANT

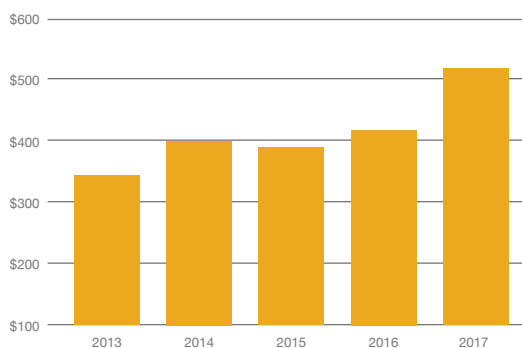
2017 ANNUAL REPORT

# KADANT

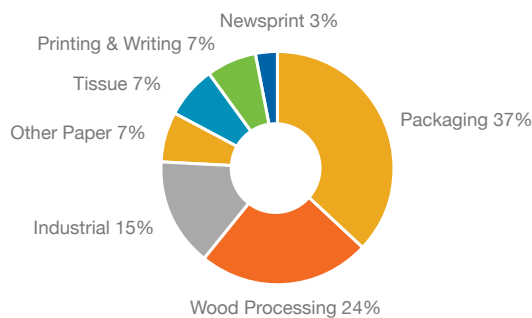
OUR MISSION IS TO ENABLE OUR CUSTOMERS TO IMPROVE EFFICIENCY AND REDUCE INPUT COSTS THROUGH INNOVATIVE PRODUCTS, TECHNOLOGIES, AND PROCESS EXPERTISE.

Kadant Inc. (NYSE: KAI) is a global supplier of high-value, critical components and engineered systems with 2017 revenue of \$515 million and 2,400 employees in 20 countries. Our products, technologies, and services play an integral role in enhancing process efficiency, optimizing energy utilization, and maximizing productivity in resource-intensive process industries worldwide.

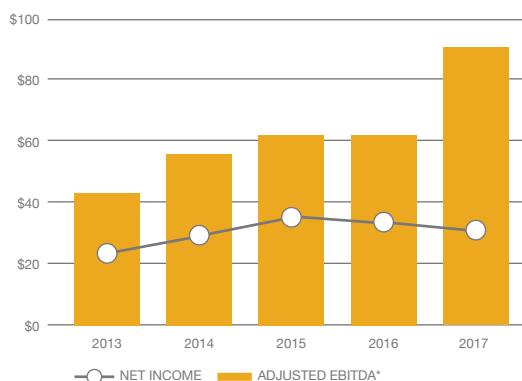
Revenue  
(dollars in millions)



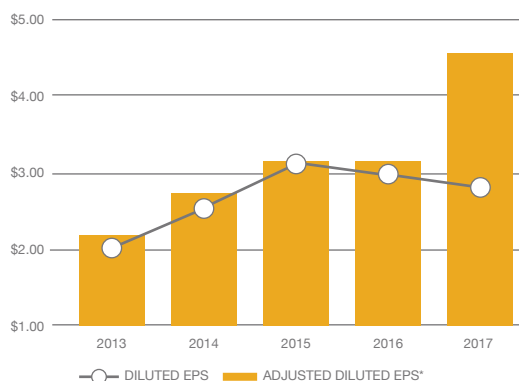
Revenue by End Market\*\*  
(second half of 2017)



Net Income and Adjusted EBITDA\*  
(dollars in millions)



Earnings per Share



\* Adjusted EBITDA (earnings before interest, taxes, depreciation, and amortization) and adjusted diluted EPS (earnings per share) are non-GAAP financial measures that exclude certain items. A reconciliation of these financial measures to the most directly comparable GAAP number appears on page (ii) under the heading "Non-GAAP Financial Measures."

\*\* Based on Company estimates of revenue by industrial category for the second half of 2017.

Dear  
Stockholder:

A combination of excellent performance by our newly acquired businesses as well as solid internal growth from our existing businesses led to record results in 2017.

During the year we completed three acquisitions expanding our presence in the forest products market and broadening our fluid-handling product portfolio. The integration of these businesses into Kadant has progressed well and allowed us to enter adjacent markets while building on our strong position in our traditional market segments. We remain highly disciplined in our acquisition approach and continue to seek complementary businesses that are well-managed, profitable, and can reinforce our position as a global leader supplying critical components and systems to process industries.

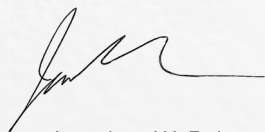
In 2017, we achieved record performance in revenue, cash flows from operations, adjusted EBITDA, and adjusted diluted EPS.\* Our revenue was up 24 percent to a record \$515 million, with 61 percent of this attributed to our parts and consumables business. As one of our most important internal growth initiatives that supports strong gross margins, I am pleased with our continued success in growing this area of our business.

Our strong margin performance in 2017 led to net income of \$31 million, record adjusted operating income of \$73 million, and record adjusted EBITDA of \$91 million.\* 2017 was also a record year for operating cash flows, which reached \$65 million, up 28 percent compared to 2016, and free cash flow was a record \$48 million.\*

The momentum we saw in the first half of 2017 continued in the second half of the year, and we are positioned for another strong year in 2018. We are seeing healthy market demand for our products in most regions of the world and, as the market leader in most of our product categories, we are well positioned to capitalize on this demand.

Further, as we focus on our competitive advantages and execute our growth strategies, we are extending our application expertise and products into new industries and applications. Our technologies fit nicely across a broad range of industrial applications and Kadant is well-regarded and trusted by OEMs who serve multiple industry segments.

Our history of stable revenue and earnings, healthy balance sheet, and successful track record of acquisitions position us well for future growth. We expect 2018 to be a record year for both revenue and diluted EPS driven by solid internal growth, as well as contributions from our recent acquisitions. As always, I would like to thank our stockholders for your continued support and our employees for making 2017 an outstanding year. We look forward to delivering another year of solid performance in 2018.



Jonathan W. Painter  
President and Chief Executive Officer  
March 29, 2018

\* Adjusted operating income, adjusted EBITDA, adjusted diluted EPS, and free cash flow are non-GAAP financial measures that exclude certain items. A reconciliation of these financial measures to the most directly comparable GAAP number appears on the following page under the heading "Non-GAAP Financial Measures."

## NON-GAAP FINANCIAL MEASURES

<b>Adjusted Diluted EPS Reconciliation</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Diluted EPS attributable to Kadant, as reported	\$2.07	\$ 2.56	\$ 3.10	\$ 2.88	\$ 2.75
Diluted EPS from discontinued operations	–	–	(0.01)	–	–
Diluted EPS from continuing operations	2.07	2.56	3.09	2.88	2.75
Adjustments for the following, net of tax:					
Acquisition costs	–	–	–	0.15	0.39
Amortization of acquired profit in inventory and backlog	0.17	0.17	0.01	0.12	0.43
Discrete tax items (a)	–	–	–	(0.02)	0.90
Restructuring costs and other income	–	0.05	0.03	(0.02)	0.01
Adjusted diluted EPS (b)	\$ 2.24	\$ 2.78	\$ 3.13	\$ 3.10	\$ 4.49

<b>Adjusted Operating Income and Adjusted EBITDA Reconciliation</b> (in millions)	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Net income attributable to Kadant	\$ 23.4	\$ 28.7	\$ 34.4	\$ 32.1	\$ 31.1
Net income attributable to noncontrolling interest	0.2	0.4	0.3	0.4	0.5
Loss (income) from discontinued operation, net of tax	0.1	–	(0.1)	–	–
Provision for income taxes	9.3	12.4	14.8	12.1	26.1
Interest expense, net	0.3	0.6	0.7	1.0	3.1
Operating income	33.3	42.1	50.1	45.6	60.8
Restructuring costs and other income	0.1	0.8	0.5	(0.3)	0.2
Acquisition costs	–	–	–	1.8	5.3
Amortization of acquired profit in inventory and backlog	2.6	2.6	0.2	1.9	6.6
Adjusted operating income	36.0	45.5	50.8	49.0	72.9
Depreciation and amortization	8.7	10.8	10.7	12.9	17.9
Adjusted EBITDA	\$ 44.7	\$ 56.3	\$ 61.5	\$ 61.9	\$ 90.8


<b>Free Cashflow Reconciliation</b> (in millions)	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Cash provided by operations, as reported	\$ 39.9	\$ 48.9	\$ 37.9	\$51.0	\$ 65.2
Capital expenditures	(6.2)	(6.8)	(5.5)	(5.8)	(17.3)
Free cashflow	\$ 33.7	\$ 42.1	\$ 32.4	\$45.2	\$ 47.9

(a) Discrete tax items in 2017 relate to U.S. tax legislation enacted in December 2017 and discrete tax items in 2016 primarily relate to the reversal of valuation allowances on certain deferred tax assets in the U.S.

(b) Adjusted Diluted EPS was calculated using the reported weighted average diluted shares.

Adjusted diluted earnings per share (EPS), adjusted operating income, adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA), and free cash flow are non-GAAP financial measures. Non-GAAP financial measures are not meant to be considered superior to or a substitute for the results of operations prepared in accordance with GAAP. In addition, the non-GAAP financial measures have limitations associated with their use as compared to the most directly comparable GAAP measures, in that they may be different from, and therefore not comparable to, similar measures used by other companies and to the performance of our competitors. Such measures are also used by us in our financial and operating decision-making and for compensation purposes. We also believe this information is responsive to investors' requests and gives them an additional measure of our performance.

We believe that these non-GAAP financial measures, when taken together with the corresponding GAAP financial measures, provide meaningful supplemental information regarding our performance by excluding certain items that may not be indicative of our core business, operating results, or future outlook. We believe that the inclusion of such measures helps investors to gain an understanding of our underlying operations and future prospects, consistent with how management measures and forecasts our performance, especially when comparing such results to previous periods or forecasts.



# Form 10-K

**Kadant Inc.**

2017 Annual Report

Consolidated Financial Statements

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 10-K**

(mark one)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 30, 2017

OR

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

Commission file number 001-11406

**KADANT INC.**

(Exact name of Registrant as specified in its charter)

Delaware  
(State or other jurisdiction of incorporation or organization)  
One Technology Park Drive  
Westford, Massachusetts  
(Address of principal executive offices)

52-1762325  
(I.R.S. Employer Identification No.)  
  
01886  
(Zip Code)

Registrant's telephone number, including area code: (978) 776-2000

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

Title of each class	Name of each exchange on which registered
Common Stock, \$.01 par value	New York Stock Exchange

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

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

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

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant 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 common equity held by nonaffiliates of the Registrant as of July 1, 2017, was approximately \$804,721,000. For purposes of the immediately preceding sentence, the term "affiliate" consists of each director and executive officer of the Registrant.

As of February 16, 2018, the Registrant had 11,028,033 shares of common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Registrant's definitive Proxy Statement pursuant to Regulation 14A promulgated under the Securities Exchange Act of 1934, as amended, to be used in connection with the Registrant's 2018 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

**Kadant Inc.**  
**Annual Report on Form 10-K**  
**for the Fiscal Year Ended December 30, 2017**  
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## PART I

### Forward-Looking Statements

This Annual Report on Form 10-K and the documents that we incorporate by reference in this Report include forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), and Section 27A of the Securities Act of 1933, as amended. These forward-looking statements are not statements of historical fact, and may include statements regarding possible or assumed future results of operations. Forward-looking statements are subject to risks and uncertainties and are based on the beliefs and assumptions of our management, using information currently available to our management. When we use words such as "believes," "expects," "anticipates," "intends," "plans," "estimates," "seeks," "should," "likely," "will," "would," "may," "continue," "could," or similar expressions, we are making forward-looking statements.

Forward-looking statements are not guarantees of performance. They involve risks, uncertainties, and assumptions. Our future results of operations may differ materially from those expressed in the forward-looking statements. Many of the important factors that will determine these results and values are beyond our ability to control or predict. You should not put undue reliance on any forward-looking statements. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise. For a discussion of important factors that may cause our actual results to differ materially from those suggested by the forward-looking statements, you should read carefully the section captioned "Risk Factors" in Part I, Item 1A, of this Report.

### Item 1. Business

The terms "we," "us," "our," "Registrant," or "Company" in this Report refer to Kadant Inc. and its consolidated subsidiaries.

#### Description of Our Business

We are a leading global supplier of equipment and critical components used in process industries worldwide. In addition, we manufacture granules made from papermaking by-products. We have a diverse and large customer base, including most of the world's major paper, lumber and oriented strand board (OSB) manufacturers, and our products, technologies, and services play an integral role in enhancing process efficiency, optimizing energy utilization, and maximizing productivity in resource-intensive industries.

Our continuing operations are comprised of two reportable operating segments, Papermaking Systems and Wood Processing Systems, and a separate product line, Fiber-based Products. Through our Papermaking Systems segment, we develop, manufacture, and market a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Our principal products include custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.

Through our Wood Processing Systems segment, we develop, manufacture, and market stranders, debarkers, chippers, and logging machinery used in the harvesting and production of lumber and OSB. Through this segment, we also provide refurbishment and repair of pulping equipment for the pulp and paper industry.

Through our Fiber-based Products business, we manufacture and sell biodegradable, absorbent granules derived from papermaking by-products for use primarily as carriers for agricultural, home lawn and garden, and professional lawn, turf and ornamental applications, as well as for oil and grease absorption.

On July 5, 2017, we acquired the forest products business of NII FPG Company (NII FPG) pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for \$170.8 million, net of cash acquired. NII FPG is a global leader in the design and manufacture of equipment used by sawmills, veneer mills, and other manufacturers in the forest products industry. NII FPG also designs and manufactures logging equipment used in harvesting timber from forest plantations. This acquisition extends our presence deeper into the forest products industry and complements our existing Wood Processing Systems segment.

On August 14, 2017, we acquired certain assets of Unaflex, LLC (Unaflex) for \$31.3 million in cash, subject to a post-closing adjustment. Unaflex is a leading manufacturer of expansion joints and related products for process industries. This acquisition complements our existing Fluid-Handling product line within our Papermaking Systems segment.



## Papermaking Systems Segment

Our Papermaking Systems segment has a long and well-established history of developing, manufacturing, and marketing equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Some of our businesses or their predecessor companies have been in operation for more than 100 years. Our customer base includes major global paper manufacturers, and we believe we have one of the largest installed bases of equipment in the markets we serve within the pulp and paper industry. We manufacture our Papermaking Systems products in nine countries in Europe, North and South America, and Asia.

Our Papermaking Systems segment consists of the following product lines: Stock-Preparation; Doctoring, Cleaning, & Filtration; and Fluid-Handling.

### *Stock-Preparation*

We develop, manufacture, and market custom-engineered systems and equipment, as well as standard individual components, for baling, pulping, de-inking, screening, cleaning, and refining primarily recycled fiber for preparation for entry into the paper machine, and recausticizing and evaporation equipment and systems used in the production of virgin pulp. Our baling equipment is also used to compress a variety of other secondary materials to prepare them for transport or storage. Our principal stock-preparation products include:

- Recycling and approach flow systems: Our equipment includes pulping, screening, cleaning, and de-inking systems that blend pulp mixtures and remove contaminants, such as ink, glue, metals, and other impurities, to prepare them for entry into the paper machine during the production of recycled paper.
- Virgin pulping process equipment: Our equipment includes pulp washing, evaporator, recausticizing, and condensate treatment systems used to remove lignin, concentrate and recycle process chemicals, and remove condensate gases.
- Balers and related equipment: Our equipment includes horizontal channel balers, vertical balers, conveyors, compactors, and bale wrapping machines used in the processing of recyclable and waste materials.

### *Doctoring, Cleaning, & Filtration*

We develop, manufacture, and market a wide range of doctoring, cleaning, and filtration systems and related consumables that continuously clean rolls to keep paper machines and other industrial processes running efficiently; doctor blades made of a variety of materials to perform functions including cleaning, creping, web removal, flaking, and the application of coatings; profiling systems that control moisture, web curl, and gloss during paper converting; and systems and equipment used to continuously clean fabrics and rolls, drain water from pulp mixtures, form the sheet or web, and filter the process water for reuse. Doctoring and cleaning systems are also used in other process industries such as carbon fiber, textiles and food processing. Our principal doctoring, cleaning, and filtration products include:

- Doctor systems and holders: Our doctor systems clean papermaking rolls to maintain the efficient operation of paper machines and other equipment by placing a blade against the roll at a constant and uniform pressure. A doctor system consists of the structure supporting the blade and the blade holder.
- Profiling systems: We offer profiling systems that control moisture, web curl, and gloss during paper converting.
- Doctor blades: We manufacture doctor and scraper blades made of a variety of materials including metal, bi-metal, or synthetic materials that perform a variety of functions including cleaning, creping, web removal, flaking, and applying coatings. A typical doctor blade has a life ranging from eight hours to two months, depending on the application.
- Shower and fabric-conditioning systems: Our shower and fabric-conditioning systems assist in the removal of contaminants that collect on paper machine fabrics used to convey the paper web through the forming, pressing, and drying sections of the paper machine. A typical paper machine has between three and 12 fabrics. These fabrics can easily become contaminated with fiber, fillers, pitch, and dirt that can have a detrimental effect on paper machine performance and paper quality. Our shower and fabric-conditioning systems assist in the removal of these contaminants.
- Formation systems: We supply structures that drain, purify, and recycle process water from the pulp mixture during paper sheet and web formation.

- Water-filtration systems: We offer a variety of filtration systems and strainers that remove contaminants from process water before reuse and recover reusable fiber for recycling back into the pulp mixture.

### *Fluid-Handling*

We develop, manufacture and market fluid handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data. Our products include: rotary joints, precision unions, steam and condensate systems, components, and controls used primarily in the dryer section of the papermaking process and during the production of corrugated packaging, metals, plastics, pharmaceuticals, energy, rubber, textiles, chemicals, and food. Expansion joints are used in industrial piping systems. Our principal fluid-handling systems and equipment include:

- Rotary joints: Our mechanical devices, used with rotating shafts, allow the transfer of pressurized fluid from a stationary source into and out of rotating machinery for heating, cooling, or the transfer of fluid power.
- Syphons: Our devices, installed inside rotating cylinders, are used to remove fluids from the rotating cylinders through rotary joints or unions located on either end of the cylinder.
- Turbulator® bars: Our steel or stainless steel axial bars, installed on the inside of cylinders, are used to induce turbulence in the condensate layer to improve the uniformity and rate of heat transfer through the cylinders.
- Expansion joints: Our rubber, metal, fabric and other materials are used to compensate for movement due to thermal expansion, vibration and other causes.
- Engineered steam and condensate systems: Our steam systems control the flow of steam from the boiler to the paper drying cylinders, collect condensed steam, and return it to the boiler to improve energy efficiency during the paper drying process. Our systems and equipment are also used to efficiently and effectively distribute steam in a wide variety of industrial processing applications.

### Wood Processing Systems Segment

We develop, manufacture, and market stranders and related equipment used in the production of OSB. We also supply stranders, debarkers, chippers and logging machinery used in the harvesting and production of lumber and OSB. In addition, we provide refurbishment and repair of pulping equipment for the pulp and paper industry. We manufacture our wood-processing products principally in Canada, Finland and the United States. Our principal wood-processing products and services include:

- Ring and rotary debarkers: Our fixed and sliding ring debarkers utilize a rotating multi-tool to strip the bark off a non-rotating log. Our ring debarkers are used in lumber mills to remove the bark from the tree before further processing into lumber. Our rotary debarkers and related parts and consumables employ a combination of mechanical abrasion and log-to-log contact to efficiently remove bark from logs of all shapes and species.
- Stranders: Our disc and ring stranders and related parts and consumables cut batch-fed logs into strands for OSB production and are used to manage strands in real time using our patented conveying and feeding equipment.
- Chippers: Our disc, drum, and veneer chippers and related parts and consumables are high-quality, robust chipper systems for waste-wood and whole-log applications found in pulp woodrooms, chip plants, sawmill, and planer mill sites.
- Logging machinery: Our feller bunchers, log loaders, and swing yarders are used to harvest and gather timber for lumber production.
- Repair: We also refurbish and repair pulping equipment used in the pulp and paper industry.

### Fiber-based Products

We manufacture and sell biodegradable, absorbent granules derived from papermaking by-products for use primarily as carriers for agricultural, home lawn and garden, and professional lawn, turf and ornamental applications, as well as for oil and grease absorption.

## Research and Development

We develop a broad range of products for all facets of the markets we serve. We operate research and development facilities in the United States, Europe, and Canada, and focus our product innovations on process industry challenges and the need for improved fiber processing, heat transfer, roll and fabric cleaning, fluid handling, timber harvesting, wood processing, and secondary material handling. In addition to internal product development activities, our research centers allow customers to simulate their own operating conditions and applications to identify and quantify opportunities for improvement.

Our research and development expenses were \$9.6 million in 2017\*, \$7.4 million in 2016, and \$6.7 million in 2015.

## Raw Materials

The primary raw materials used in our Papermaking Systems segment are steel, stainless steel, ductile iron, brass, bronze, aluminum, and elastomers which have generally been available through a number of suppliers.

The primary raw materials used in our Wood Processing Systems segment are steel and stainless steel, which have generally been available through a number of suppliers.

The raw material used in the manufacture of our fiber-based granules is a by-product from the production of paper that we obtain from two paper mills. If the mills were unable or unwilling to supply us with sufficient fiber, we would be forced to find one or more alternative suppliers for this raw material.

To date, we have not needed to maintain raw material inventories in excess of our current needs to ensure availability.

## Patents, Licenses, and Trademarks

We protect our intellectual property rights by applying for and obtaining patents when appropriate. We also rely on technical know-how, trade secrets, and trademarks to maintain our competitive position. We also enter into license agreements with others to grant and/or receive rights to patents and know-how. No particular patent, or related group of patents, is so important that its expiration or loss would significantly affect our operations.

### *Papermaking Systems Segment*

We have numerous U.S. and foreign patents, including foreign counterparts to our U.S. patents, expiring on various dates ranging from 2018 to 2038. From time to time, we enter into licenses of products with other companies that serve the pulp, papermaking, converting, and paper recycling industries.

### *Wood Processing Systems Segment*

We have numerous U.S. and foreign patents, including foreign counterparts to our U.S. patents, expiring on various dates ranging from 2019 to 2037, related to wood processing and debarking equipment.

### *Fiber-based Products*

We currently hold several U.S. patents, expiring on various dates ranging from 2019 to 2034, related to various aspects of the processing of fiber-based granules and the use of these materials in the agricultural, professional turf, home lawn and garden, general absorption, oil and grease absorption, and catbox filler markets.

## Seasonal Influences

### *Papermaking Systems Segment*

There are no material seasonal influences on this segment's sales of products and services.

### *Wood Processing Systems Segment*

Our Wood Processing Systems segment is subject to seasonal variations, with demand for many of our products tending to be greater during the building and timber harvesting season, which generally occurs in the second and third quarters in North America.

### *Fiber-based Products*

Our Fiber-based Products business experiences fluctuations in sales, usually in the third quarter, when sales decline due to the seasonality of the agricultural and home lawn and garden markets.

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\* Unless otherwise noted, references to 2017, 2016, and 2015 in this Annual Report on Form 10-K are for the fiscal years ended December 30, 2017, December 31, 2016, and January 2, 2016, respectively.

### Working Capital Requirements

There are no special inventory requirements or credit terms extended to customers that would have a material adverse effect on our working capital.

### Dependency on a Single Customer

No single customer accounted for 10% or more of our consolidated revenues in any of the past three years. In addition, revenues in our Papermaking Systems segment were not dependent on any one customer. As a percentage of revenues, the two largest customers in our Wood Processing Systems segment accounted for 29% in 2017, 48% in 2016, and 32% in 2015. Approximately 65% in 2017, 60% in 2016, and 50% in 2015, of our sales were to customers outside the United States, principally in Europe, Asia and Canada.

### Backlog

Our backlog of firm orders for the Papermaking Systems segment was \$116.3 million at year-end 2017 and \$89.6 million at year-end 2016. Our backlog of firm orders for the Wood Processing Systems segment was \$27.6 million at year-end 2017 and \$8.0 million at year-end 2016. The total consolidated backlog of firm orders was \$145.3 million at year-end 2017 and \$98.6 million at year-end 2016. We anticipate that substantially all the backlog at year-end 2017 will be shipped or completed during 2018. Some of these orders can be canceled by the customer upon payment of a cancellation fee.

### Sales and Marketing

We market and sell our engineered products, services, and systems to process industries using a combination of a direct sales force and independent sales agents and distributors depending on the market and product being sold. Technical service personnel, product specialists, and independent sales agents and distributors are utilized in certain markets and with certain product lines. Our application expertise is complimented by a consultative selling approach to ensure we meet the needs of our customers.

### Competition

We are a leading supplier of systems and equipment in each of our product lines within our Papermaking Systems segment and there are several global and numerous local competitors in each market. In our Wood Processing Systems segment, we compete with one primary global competitor in the OSB market for stranding equipment, a limited number of competitors in forest products for our debarkers, and several global and local competitors for our other products. Because of the diversity of our products, we face many different types of competitors and competition. We compete primarily on the basis of technical expertise, product innovation, and product performance. We believe the reputation that we have established for high-performance, high-reliability products supported by our in-depth process knowledge and application expertise provides us with a competitive advantage. In addition, a significant portion of our business is generated from our worldwide customer base. To maintain this base, we have emphasized our global presence, local support, and a problem-solving relationship with our customers. Our success primarily depends on the following factors:

- Technical expertise and process knowledge;
- Product innovation;
- Product quality, reliability, and performance;
- Operating efficiency of our products;
- Customer service and support;
- Relative price of our products; and
- Total cost of ownership of our products.

### Environmental Protection Regulations

We believe that our compliance with federal, state, and local environmental protection regulations will not have a material adverse effect on our capital expenditures, earnings, or competitive position.

### Employees

At year-end 2017, we had approximately 2,400 employees worldwide.

**Financial Information About Segments and Geographic Areas**

Financial information concerning our segments, product lines, and geographic areas is summarized in Note 11 to the consolidated financial statements, which begin on page F-1 of this Report.

**Available Information**

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission (SEC) under the Exchange Act. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at [www.sec.gov](http://www.sec.gov). The public also may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, we make available free of charge through our website at [www.kadant.com](http://www.kadant.com) our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and, if applicable, amendments to these Reports filed with or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file these materials with, or furnish them to, the SEC. We are not including the information contained on our website as part of this Report nor are we incorporating the information on our website into this Report by reference.

**Executive Officers of the Registrant**

The following table summarizes certain information concerning our executive officers as of February 16, 2018:

<b>Name</b>	<b>Age</b>	<b>Present Title (Fiscal Year First Became Executive Officer)</b>
Jonathan W. Painter .....	59	President and Chief Executive Officer (1997)
Eric T. Langevin .....	55	Executive Vice President and Chief Operating Officer (2006)
Jeffrey L. Powell.....	59	Executive Vice President (2009)
Michael J. McKenney.....	56	Senior Vice President and Chief Financial Officer (2002)
Sandra L. Lambert.....	62	Vice President, General Counsel, and Secretary (2001)
Deborah S. Selwood .....	49	Vice President and Chief Accounting Officer (2015)

Mr. Painter has been our chief executive officer and a director since January 2010 and our president since September 1, 2009. He served as chief operating officer from September 2009 to January 2010. Between 1997 and September 2009, Mr. Painter served as an executive vice president and from March 2007 through September 2009 had supervisory responsibility for our Stock-Preparation and Fiber-based Products businesses. He served as president of our Composite Building Products business from 2001 until its sale in 2005. He also served as our treasurer and the treasurer of Thermo Electron Corporation (Thermo Electron) from 1994 until 1997. Prior to 1994, Mr. Painter held various managerial positions with us and Thermo Electron.

Mr. Langevin has been an executive vice president and our chief operating officer since January 2010. Prior to January 2010, Mr. Langevin had been a senior vice president since March 2007 and had supervisory responsibility for our Fluid-Handling and Doctoring, Cleaning, & Filtration businesses. He served as vice president, with responsibility for our Doctoring, Cleaning, & Filtration business, from 2006 to 2007. From 2001 to 2006, Mr. Langevin was president of Kadant Web Systems Inc. (now our Kadant Solutions division) and before that served as its senior vice president and vice president of operations. Prior to 2001, Mr. Langevin managed several product groups and departments within Kadant Web Systems after joining us in 1986 as a product development engineer.

Mr. Powell has been an executive vice president since March 2013 and has supervisory responsibility for our Stock-Preparation, Wood Processing, and Fiber-based Products businesses. From September 2009 to March 2013, he was a senior vice president. From January 2008 to September 2009, Mr. Powell was vice president, new ventures, with principal responsibility for acquisition-related activities. Prior to joining us, Mr. Powell was the chairman and chief executive officer of Castion Corporation from April 2003 through December 2007.

Mr. McKenney has been a senior vice president and our chief financial officer since June 2015. He served as our vice president, finance and chief accounting officer from 2002 to 2015 and as corporate controller from 1997 to 2007. Mr. McKenney was controller of Kadant AES, our division acquired from Albany International Inc., from 1993 to 1997. Prior to 1993, Mr. McKenney held various financial positions at Albany International.

Ms. Lambert has been a vice president and our general counsel since 2001, and our secretary since our incorporation in 1991. Prior to joining us, she was a vice president and the secretary of Thermo Electron from 1999 and 1990, respectively, to 2001 and before that was a member of Thermo Electron's legal department.

Ms. Selwood has been a vice president and our chief accounting officer since June 2015. She served as our corporate controller from 2007 to 2015 and as assistant controller from 2004 to 2007. Prior to 2004, Ms. Selwood held various financial positions at Arthur Andersen LLP and Genuity Inc.

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

Our business, results of operations and financial condition, and an investment in our securities, are subject to a number of risks. The risks and uncertainties described below are those that we have identified as material, but are not the only risks and uncertainties we face. Our business is also subject to general risks and uncertainties that affect many other companies, including overall economic and industry conditions. Additional risks and uncertainties not currently known to us or that we currently believe are not material also may impair our business, consolidated financial condition and results of operations.

*Adverse changes in global and local economic conditions may negatively affect our industry, business and results of operations.*

We sell products worldwide to global process industries and a significant portion of our revenue is from customers based in North America, Europe and China. Uncertainties in global and regional economic outlooks have negatively affected, and may in the future negatively affect, demand for our customers' products and, as a consequence, our products and services, especially our capital equipment systems and products, and our operating results. Also, uncertainty regarding economic conditions has caused, and may in the future cause, liquidity and credit issues for many businesses, including our customers in the pulp and paper industry as well as other process industries, and may result in their inability to fund projects, capacity expansion plans, and to some extent, routine operations and capital expenditures. These conditions have resulted, and may in the future result, in a number of structural changes in process industries, including decreased spending, mill closures, consolidations, and bankruptcies, all of which negatively affect our business, revenue, and profitability. Financial and economic turmoil affecting the worldwide economy or the banking system and financial markets, in particular due to political or economic developments, could cause the expectations for our business to differ materially in the future.

*Revenues from the sale of large capital equipment and systems projects are often difficult to predict accurately, especially in periods of economic uncertainty, and large capital equipment projects require significant investment requiring our customers to secure financing, which may be difficult.*

We manufacture capital equipment and systems used in process industries, including the wood processing and paper industries. Approximately 39% of our revenue in 2017 was from the sale of capital equipment to be used in process industries. The demand for capital equipment is variable and depends on a number of factors, including consumer demand for end products, existing manufacturing capacity, the level of capital spending by our customers and economic conditions. As a consequence, our bookings and revenues for capital projects tend to be variable and difficult to predict. It is especially difficult to accurately forecast our operating results during periods of economic uncertainty. Paper and wood processing companies curtail their capital and operating spending during periods of economic uncertainty and are cautious about resuming spending as market conditions improve. Levels of consumer spending on non-durable goods, demand for food and beverage packaging, and demand for new housing and remodeling are all factors that affect paper and wood processing companies' demand for our products, and reductions in these demand levels can negatively impact our business. As paper and wood processing companies consolidate operations in response to market weakness, they frequently reduce capacity, increase downtime, defer maintenance and upgrades, and postpone or even cancel capacity additions or expansion projects. Capacity growth and investment can be uneven and the larger paper producers have delayed, and may in the future delay, additional new capacity start-ups in reaction to softer market conditions. In general, as significant capacity additions come online and the economic growth rate slows, paper producers have deferred and could in the future defer further investments or the delivery of previously-ordered equipment until the market absorbs the new production.

Large capital equipment projects require a significant investment and may require our customers to secure financing from external sources. Our financial performance will be negatively impacted if there are delays in customers securing financing or our customers become unable to secure such financing due to any number of factors, including a tightening of monetary policy or regime-based sanctions such as those imposed on Russia. Financing delays of our customers can cause us to delay booking pending orders as well as the shipment of some orders. The inability of our customers to obtain credit may affect our ability to recognize revenue and income, particularly on large capital equipment orders from new customers for which we may require letters of credit. We may also be unable to issue letters of credit to our customers, which are required in some cases to guarantee performance, during periods of economic uncertainty. This has negatively affected our bookings and revenues in the past, particularly in China, and may negatively affect our operating results in the future.

*Our sales of capital equipment in China tend to be more variable and are subject to a number of uncertainties.*

Our bookings and revenues from China tend to be more variable than in other geographic regions, as the Chinese pulp and paper industry experiences periods of significant capacity expansion to meet demand followed by periods of reduced activity while overcapacity is absorbed. These cycles result in periods of significant bookings activity for our capital products

and increased revenues followed by a significant decrease in bookings or potential delays in shipments and order placements by our customers as they attempt to balance supply and demand.

In addition, orders from customers in China, particularly for large stock-preparation systems that have been tailored to a customer's specific requirements, have credit risks higher than we generally incur elsewhere, and some orders are subject to the receipt of financing approvals from the Chinese government or can be impacted by the availability of credit and more restrictive monetary policies. We generally do not record bookings for signed contracts from customers in China for large stock-preparation systems until we receive the down payments for such contracts. The timing of the receipt of these orders and the down payments are uncertain and there is no assurance that we will be able to recognize revenue on these contracts. Delays in the receipt of payments and letters of credit affect when revenues can be recognized on these contracts, making it difficult to accurately forecast our future financial performance. We may experience a loss if a contract is canceled prior to the receipt of a down payment if we have commenced engineering or other work associated with the contract. We typically have inventory awaiting shipment to customers and could incur a loss if contracts are canceled and we cannot re-sell the equipment. In addition, we may experience a loss if the contract is canceled, or the customer does not fulfill its obligations under the contract, prior to the receipt of a letter of credit or final payments covering the remaining balance of the contract, which could represent 80% or more of the total order. As a result of these factors, our revenues recognized in China have varied, and will in the future vary, greatly from period to period and be difficult to predict.

*Our global operations subject us to various risks that may adversely affect our results of operations.*

We sell our products globally, including sales to customers in China, South America, Russia and India, and operate multiple manufacturing operations worldwide, including operations in Canada, China, Europe, Mexico, and Brazil. International revenues and operations are subject to a number of risks, including the following:

- agreements may be difficult to enforce and receivables difficult to collect through a foreign country's legal system;
- foreign customers may have longer payment cycles;
- foreign countries may impose additional withholding taxes or otherwise tax our foreign income, impose tariffs, adopt other restrictions on foreign trade, impose currency restrictions or enact other protectionist or anti-trade measures;
- environmental and other regulations can adversely impact our ability to operate our facilities;
- disruption from climate change, natural disaster, fires, war, terrorist activity, and other force majeure events beyond our control;
- worsening economic conditions may result in worker unrest, labor actions, and potential work stoppages;
- political unrest may disrupt commercial activities of ours or our customers;
- it may be difficult to repatriate funds, due to unfavorable domestic and foreign tax consequences or other restrictions or limitations imposed by foreign governments; and
- the protection of intellectual property in foreign countries may be more difficult to enforce.

Some of these conditions are more likely to occur in certain geographic regions in which we operate.

Operating globally subjects us to changes in government regulations and policies in multiple jurisdictions around the world, including those related to tariffs and trade barriers, taxation, exchange controls and political risks. Changes in government policies, political unrest, economic sanctions, trade embargoes, or other adverse trade regulations can negatively impact our business. We operate businesses in Mexico and Canada, and we benefit from the North American Free Trade Agreement (NAFTA). If the United States were to withdraw from or materially modify NAFTA or to impose significant tariffs or taxes on goods imported into the United States, the cost of our products could materially increase or no longer be priced competitively, which in turn could have a material adverse effect on our business and results of operations.

Our sales to customers in Russia and other parts of Europe have increased as a result of our recent acquisition of our forest products business. In 2017, our sales to Russia were \$10.8 million or 2% of our revenue. In August 2017, the United States imposed new trade sanctions against certain persons in Russia, in addition to those previously imposed in 2014. In response, Russia may impose trade sanctions that could affect U.S.-owned businesses. The imposition of trade sanctions may make it generally more difficult to do business in Russia and cause delays or prevent shipment of products or services performed by our personnel, or to receive payment for products or services. Such restrictions could have a material adverse impact on our business and operating results going forward.

We operate significant manufacturing facilities in and derive significant revenue from China. Changes in the policies of the Chinese government, devaluation of the Chinese currency, restrictions on the expatriation of cash, political unrest, unstable economic conditions, or other developments in China or in U.S.-China relations that are adverse to trade, including enactment of protectionist legislation or trade or currency restrictions, could negatively impact our business and operating results. Policies of the Chinese government to target slower economic growth may negatively affect our business in China if

customers are unable to expand capacity or obtain financing for expansion or improvement projects. Policies of the Chinese government to advance internal political priorities may potentially negatively affect our business in any number of ways that we may not foresee. For example, China has imposed a ban on mixed waste paper imports and reported that all recovered paper imports will be limited to a 0.5% contaminant level after March 1, 2018, which is well below the level that suppliers consider feasible. These policies could have a significant influence on the price, type and availability of the furnish of paper imported into China, could have a negative effect on the operating capacity of our customers in China and may negatively affect the demand for our products and our operating results in the future.

*We manufacture equipment used in the production of forest products, including lumber and OSB, and our financial performance may be adversely affected by decreased levels of residential construction activity.*

We manufacture debarkers, stranders and related equipment used in the production of lumber and OSB, an engineered wood panel product used primarily in home construction. Our customers produce these products principally for new residential construction, home repair and remodeling activities. As such, the operating results for our Wood Processing Systems segment correlate to a significant degree to the level of this residential construction activity, primarily in North America and, to a lesser extent, in Europe. Residential construction activity is influenced by a number of factors, including the supply of and demand for new and existing homes, new housing starts, unemployment rates, interest rate levels, availability of mortgage financing, mortgage foreclosure rates, availability of construction labor and suitable land, seasonal and unusual weather conditions, general economic conditions and consumer confidence. A significant increase in long-term interest rates, changes in tax policy of the deductibility of mortgages, tightened lending standards, high unemployment rates and other factors that reduce the level of residential construction activity could have a material adverse effect on our financial performance.

*The OSB market is highly concentrated and the market for building products is highly competitive. The loss of a significant customer or our customers' reductions in capital spending or OSB production could have a material adverse effect on our financial performance.*

The OSB market is highly concentrated and there are a limited number of OSB manufacturers. As a percentage of our Wood Processing Systems segment revenues, the two largest OSB customers accounted for 29% in 2017, 48% in 2016, and 32% in 2015. The loss of one or more of these customers to a competitor could adversely affect our revenues and profitability. In addition, the market for building products is highly competitive. Products that compete with OSB include other wood panel products and substitutes for wood building products, such as nonfiber-based alternatives. For example, plastic, wood/plastic or composite materials may be used by builders as alternatives to OSB products. Changes in component prices, such as energy, chemicals, wood-based fibers, and nonfiber alternatives can change the competitive position of OSB relative to other available alternatives and could increase substitution. Our customers' OSB production can be adversely affected by lower-cost producers of other wood panel products and substitutes for wood building products. Lower demand for OSB products or a decline in the profitability of one or more of our customers could result in a reduction in spending on capital equipment or the shutdown or closure of an OSB mill, which could have a material adverse effect on our financial performance.

*The development and increasing use of digital media has had, and will continue to have, an adverse impact on our Papermaking Systems segment.*

Developments in digital media have adversely affected demand for newsprint and for printing and writing grades of paper, particularly in North America and Europe, a trend which is expected to continue. Approximately 12% of our revenue in 2017 was from customers producing newsprint and printing and writing grades of paper. Significant declines in the production of printing and writing paper grades have also led to a drop in the construction of recycled tissue mills, as those mills use printing and writing grades of waste paper as their fiber source. The increased use of digital media has had, and will continue to have, an adverse effect on demand for our products in those markets.

*Our results of operations may be adversely affected by currency fluctuations.*

As a multinational corporation, we are exposed to fluctuations in currency exchange rates that impact our business in many ways. We are exposed to both translation as well as transaction risk associated with transactions denominated in currencies that differ from our subsidiaries' functional currencies. Although most of our subsidiaries' costs are denominated in the same currency as their revenues, changes in the relative values of currencies occur from time to time and can adversely affect our operating results. Some of the foreign currency translation risk is mitigated when foreign subsidiaries have revenue and expenses in the same foreign currency. Further, certain foreign subsidiaries may hold U.S. dollar assets or liabilities which, as the U.S. dollar strengthens versus the applicable functional currencies, will result in currency transaction gains on assets or losses on liabilities. While some foreign currency risks can be hedged using derivatives or other financial instruments, or may be insurable, such attempts to mitigate these risks may be costly and not always successful.

When we translate the local currency results of our foreign subsidiaries into U.S. dollars during a period in which the U.S. dollar is strengthening, our financial results will reflect decreases due to foreign currency translation. In addition, our



consolidated financial results are adversely affected when foreign governments devalue their currencies. Our major foreign currency translation exposures involve the currencies in Europe, China, Brazil, Canada and Mexico. For example, China's central bank devalued the renminbi to boost the Chinese economy in 2016, which had a negative translation impact on our consolidated revenues and will continue to have a negative translation impact if this recurs. Foreign currency translation had a negative effect on our financial results in 2016 and 2015, and a positive impact in 2017. We do not enter into derivatives or other financial instruments to hedge this type of foreign currency translation risk.

*Price increases and shortages in raw materials and components and dependency upon certain suppliers for such raw materials and components could adversely impact our operating results.*

We use a variety of raw materials, including a significant amount of stainless steel, commodities and critical components to manufacture our products. Increases in the prices of such raw materials, commodities and critical components could adversely affect our operating results if we were unable to fully offset the effect of these increased costs through price increases, productivity improvements, or cost reduction programs.

Some of our businesses depend on limited suppliers to provide critical components used in the manufacture of our products. If we could not obtain sufficient supplies of these components or these sources of supply ceased to be available to us, we could experience shortages in critical components or be unable to meet our commitments to customers. Alternative sources of supply could be more expensive or, in some cases, not available. We believe our sources of raw materials, commodities and critical components will generally be sufficient for our needs in the foreseeable future. However, our operating results could be negatively impacted if supply is insufficient for our operations.

*Implementing our acquisition strategy involves risks, and our failure to successfully implement this strategy could have a material adverse effect on our business.*

We expect that a significant driver of our growth over the next several years will be the acquisition of technologies and businesses that complement or augment our existing products and services or may involve entry into a new process industry. We continue to actively pursue additional acquisition opportunities, some of which may be material to our business and financial performance, and involve significant cash expenditures and the incurrence of significant debt. Although we have been successful with this strategy in the past, we may not be able to grow our business in the future through acquisitions for a number of reasons, including:

- difficulties identifying and executing acquisitions;
- competition with other prospective buyers resulting in our inability to complete an acquisition or in our paying a substantial premium over the fair value of the net assets of the acquired business;
- inability to obtain regulatory approvals, including antitrust approvals;
- difficulty in integrating operations, technologies, products and the key employees of the acquired business;
- inability to maintain existing customers of the acquired business or to sell the products and services of the acquired business to our existing customers;
- inability to retain key management of the acquired business;
- diversion of management's attention from other business concerns;
- inability to improve the revenues and profitability or realize the cost savings and synergies expected of the acquisition;
- assumption of significant liabilities, some of which may be unknown at the time of acquisition;
- potential future impairment of the value of goodwill and intangible assets acquired; and
- identification of internal control deficiencies of the acquired business.

We are required to record transaction and acquisition-related costs in the period incurred. Once completed, acquisitions may involve significant integration costs. These acquisition-related costs could be significant in a reporting period and have an adverse effect on our results of operations.

Any acquisition we complete may be made at a substantial premium over the fair value of the net identifiable assets of the acquired business. We are required to assess the realizability of goodwill and indefinite-lived intangible assets annually, and whenever events or changes in circumstances indicate that goodwill and intangible assets, including definite-lived intangible assets, may be impaired. These events or circumstances would generally include operating losses or a significant decline in earnings associated with the acquired business or assets, and our ability to realize the value of goodwill and intangible assets will depend on the future cash flows of these businesses. We may incur impairment charges to write down the value of our goodwill and acquired intangible assets in the future if the assets are not deemed recoverable, which could have a material adverse effect on our operating results.

*Failure of our information systems or breaches of data security and cybertheft could impact our business.*

We operate a geographically dispersed business and rely on the electronic storage and transmission of proprietary and confidential information, including technical and financial information, among our operations, customers and suppliers. In addition, for some of our operations, we rely on information systems controlled by third parties. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or cyberthieves or breaches due to employee error, malfeasance or other disruptions. As part of our ongoing effort to upgrade our current information systems, we are implementing new enterprise resource planning software to manage certain of our business operations. As we implement and add functionality, problems could arise that we have not foreseen. System failures, network disruptions, and breaches of data security could limit our ability to conduct business as usual, including our ability to communicate and transact business with our customers and suppliers; result in the loss or misuse of this information, including credit card numbers or other personal information, the loss of business or customers, or damage to our brand or reputation; or interrupt or delay reporting of our financial results. Such system failures or unauthorized access could be caused by external theft or attack, misconduct by our employees, suppliers, or competitors, or natural disasters. In addition, the cost and operational consequences of implementing further data protection measures, such as to comply with local privacy laws such as the European Union's General Data Protection Regulation, could be significant.

*We are required to comply with a wide variety of laws and regulations, and are subject to regulation by various federal, state and foreign agencies.*

We are subject to various local, state, federal, foreign and transnational laws and regulations, particularly those relating to environmental protection, the importation and exportation of products, tariffs and trade barriers, taxation, exchange controls, current good manufacturing practices, health and safety and our business practices in the U.S. and abroad, such as anti-corruption and anti-competition laws, and, in the future, any changes to such laws and regulations could adversely affect us. Any noncompliance by us with applicable laws and regulations or the failure to maintain, renew or obtain necessary permits and licenses could result in criminal, civil and administrative penalties and could have an adverse effect on our results of operations.

*It may be difficult for us to implement our strategies for improving internal growth.*

Some of the markets in which we compete are mature and have relatively low growth rates. We pursue a number of strategies to improve our internal growth, including:

- strengthening our presence in selected geographic markets, including emerging markets and existing markets where we see opportunities;
- focusing on parts and consumables sales;
- using low-cost manufacturing bases, such as China and Mexico;
- allocating research and development funding to products with higher growth prospects;
- developing new applications for our technologies;
- combining sales and marketing operations in appropriate markets to compete more effectively;
- finding new markets for our products and expanding into different verticals or process industries; and
- continuing to develop cross-selling opportunities for our products and services to take advantage of our depth of product offerings.

We may not be able to successfully implement these strategies, and these strategies may not result in the expected growth of our business.

*We are subject to intense competition in all our markets.*

We believe that the principal competitive factors affecting the markets for our products include technical expertise and process knowledge, product innovation, product quality, and price. Our competitors include a number of large multinational corporations that may have substantially greater financial, marketing, and other resources than we do. As a result, they may be able to adapt more quickly to new or emerging technologies, such as the Internet of Things or IoT, and changes in customer requirements, or to devote greater resources to the promotion and sale of their services and products. Competitors' technologies may prove to be superior to ours. Our current products, those under development, and our ability to develop new technologies may not be sufficient to enable us to compete effectively. Competition, especially in China, has increased as new companies enter the market and existing competitors expand their product lines and manufacturing operations.

*Adverse changes to the soundness of our suppliers and customers could affect our business and results of operations.*

All our businesses are exposed to risk associated with the creditworthiness of our key suppliers and customers, including pulp and paper manufacturers, forest products and other industrial customers, many of which may be adversely affected by volatile conditions in the financial markets, worldwide economic downturns, and difficult economic conditions. These conditions could result in financial instability, bankruptcy, or other adverse effects at any of our suppliers or customers. The consequences of such adverse effects could include the interruption of production at the facilities of our suppliers, the reduction, delay or cancellation of customer orders, delays in or the inability of customers to obtain financing to purchase our products or pay amounts due, and bankruptcy of customers or other creditors. Any adverse changes to the soundness of our suppliers or customers may adversely affect our cash flows, profitability, or financial condition.

*Changes in our tax provision or exposure to additional income tax liabilities could affect our profitability.*

We derive a significant portion of our revenue and earnings from our international operations, and are subject to income and other taxes in the United States and numerous foreign jurisdictions. Changes in U.S. and foreign income tax laws and regulations, or their interpretation, could result in higher or lower income tax rates assessed or changes in the taxability of certain revenues or the deductibility of certain expenses, thereby affecting our income tax expense and profitability. A number of factors may cause our effective tax rate to fluctuate, including: changes in tax rates in various jurisdictions; unanticipated changes in the amount of profit in jurisdictions with low statutory tax rates; the resolution of issues arising from tax audits with various tax authorities; changes in the valuation of our deferred tax assets and liabilities; adjustments to income taxes upon finalization of various tax returns; increases in expenses not deductible for tax purposes, including impairments of goodwill in connection with acquisitions; changes in available tax credits or our ability to utilize foreign tax credits; and changes in tax laws or the interpretation of such tax laws. Any of these factors could cause us to experience an effective tax rate significantly different from that of prior periods or current expectations, which could have an adverse effect on our results of operations or cash flows.

On December 22, 2017, the Tax Cuts and Jobs Act (2017 Tax Act) was enacted in the U.S. that significantly revises the Internal Revenue Code. The 2017 Tax Act reduced the U.S. federal corporate tax rate from 35% to 21% starting in 2018 and transitioned from a worldwide tax system to a territorial tax system imposing a one-time tax on all foreign unremitted earnings at reduced rates. The 2017 Tax Act introduced many new provisions that become effective in 2018, including but not limited to, Global Intangible Low-Taxed Income (GILTI), Base Erosion Anti-Abuse Tax (BEAT), Foreign Derived Intangible Income (FDII) deduction, limitation of the tax deduction for net interest expense to 30% of adjusted taxable income, immediate deductions for certain new fixed asset additions instead of depreciating assets over time and changed deductions for executive compensation. Many of the provisions in the 2017 Tax Act are unclear in their application, with significant guidance required from the U.S. tax authorities that has not yet been provided. In addition, it is uncertain how various states within the United States and other jurisdictions will respond to the 2017 Tax Act. We continue to assess the impact of the new provisions on the tax provision already included in our financial statements and guidance and we may need to make adjustments as the application of the law becomes clearer, which could adversely affect our business and financial condition.

*If we are unable to successfully manage our manufacturing operations, our ability to deliver products to our customer could be disrupted and our business, financial condition and results of operations could be adversely affected.*

Equipment and operating systems necessary for our manufacturing businesses may break down, perform poorly, or fail. Any such disruption could cause losses in efficiencies, delays in shipments of our products and the loss of sales and customers, and insurance proceeds may not adequately compensate us for our losses.

In order to enhance the efficiency and cost effectiveness of our manufacturing operations, and to better serve customers located in various countries, as we have in the past, we may in the future move several product lines from one of our plants to another and consolidate manufacturing operations in certain of our plants. For example, we completed the construction of a new facility located in Lebanon, Ohio and have begun moving the principal manufacturing operations of our Kadant Black Clawson subsidiary from Theodore, Alabama and its administrative offices in Mason, Ohio into the new facility. We will also move our stock preparation manufacturing operations from Norrkoping, Sweden to the new facility. If we are unable to hire, train and retain a sufficient workforce and establish stable processes to efficiently and effectively produce high quality products in relocated manufacturing processes in the destination plant, production may be disrupted and we may not be able to deliver these products to meet customer orders in a timely manner, which may cause us to lose credibility with our customers and harm our business. Even if we successfully move our manufacturing processes, there is no assurance that the cost savings and efficiencies we anticipate will be achieved.

In addition, changes in zoning laws in China may require us to relocate certain of our manufacturing facilities. We have received a request by local Chinese authorities to relocate one of our facilities, and any relocation of our facilities may increase our costs and could have a material impact on our manufacturing operations.

*We may be required to reorganize our operations in response to changing conditions in the worldwide economy and the pulp and paper industry, and such actions may require significant expenditures and may not be successful.*

We have undertaken various restructuring measures in the past in response to changing market conditions in the countries in which we operate and we may engage in additional cost reduction programs in the future. The costs of these programs may be significant and we may not recoup the costs of these programs. In connection with any future plant closures, delays or failures in the transition of production from existing facilities to our other facilities in other geographic regions could also adversely affect our results of operations. In addition, it is difficult to accurately forecast our financial performance in periods of economic uncertainty in a region or globally, and the efforts we have made or may make to align our cost structure may not be sufficient or able to keep pace with rapidly changing business conditions. Our profitability may decline if our restructuring efforts do not sufficiently reduce our future costs and position us to maintain or increase our sales.

*Economic conditions and regulatory changes caused by the United Kingdom's likely exit from the European Union could adversely affect our business.*

The approval in June 2016 by voters in the United Kingdom (U.K.) to exit from the European Union (E.U.), referred to as Brexit, and the ensuing negotiations and likely withdrawal scheduled for March 2019, has caused, and may from time to time cause:

- volatility in the global stock markets;
- currency exchange rate fluctuations;
- effects on cross border trade and labor; and
- political and regulatory uncertainty in the U.K. and across Europe generally.

The global economic uncertainty that may occur at various periods throughout the lengthy withdrawal process may cause our customers to closely monitor their costs and reduce their spending budgets. All of these events, should they occur, could adversely affect our business, financial condition, operating results, and cash flows. Our revenues to customers in the U.K. represented approximately 4% of total revenues in 2017.

*Our debt may adversely affect our cash flow and may restrict our investment opportunities.*

We have borrowed amounts under the 2017 Credit Agreement and under other agreements to fund our operations and our acquisition strategy. As a result of the acquisition of our forest products business, we increased our foreign-denominated borrowings, and our remaining borrowing capacity under the 2017 Credit Agreement is limited. Our borrowing capacity under the 2017 Credit Agreement may further decrease as a result of the impact that foreign exchange rate fluctuation could have on our foreign-denominated borrowings. We may also obtain additional long-term debt and working capital lines of credit to meet future financing needs, which would have the effect of increasing our total leverage. Our indebtedness could have negative consequences, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- limiting our ability to pay dividends on or to repurchase our capital stock;
- limiting our ability to complete a merger or an acquisition or acquire new products and technologies through acquisitions or licensing agreements; and
- limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we compete.

Our existing indebtedness bears interest at floating rates, and as a result, our interest payment obligations on our indebtedness will increase if interest rates increase. From time to time, we hedge a portion of our variable rate interest payment obligations through interest rate swap agreements. The counterparty to the swap agreements could demand an early termination of the swap agreements if we were to be in default under the 2017 Credit Agreement, or any agreement that amends or replaces the 2017 Credit Agreement in which the counterparty is a member, and we were unable to cure the default. If our swap agreements were to be terminated prior to the applicable scheduled maturity date and if we were required to pay cash for the value of the swap, we could incur a loss, which could adversely affect our financial results.

In addition, the 2017 Tax Act places certain limitations on the deductibility of interest expense as a percentage of adjusted taxable income. If interest rates or the level of our debt increase, a portion of the interest expense may not be deductible for income tax purposes, which could adversely affect our financial results and cash flows.

Our ability to satisfy our obligations and to reduce our total debt depends on our future operating performance and on economic, financial, competitive, and other factors beyond our control. Our business may not generate sufficient cash flows to

meet these obligations or to successfully execute our business strategy. The 2017 Credit Agreement includes certain financial covenants, and our failure to comply with these covenants could result in an event of default under the 2017 Credit Agreement, the swap agreement, and our other credit facilities, and would have significant negative consequences for our current operations and our future ability to fund our operations and grow our business. If we were unable to service our debt and fund our business, we could be forced to reduce or delay capital expenditures or research and development expenditures, seek additional financing or equity capital, restructure or refinance our debt, curtail or eliminate our cash dividend to stockholders, or sell assets.

*Restrictions in our 2017 Credit Agreement may limit our activities.*

Our 2017 Credit Agreement contains, and future debt instruments to which we may become subject may contain, restrictive covenants that limit our ability to engage in activities that could otherwise benefit us, including restrictions on our ability and the ability of our subsidiaries to:

- incur additional indebtedness;
- pay dividends on, redeem, or repurchase our capital stock;
- make investments;
- create liens;
- sell assets;
- enter into transactions with affiliates; and
- consolidate, merge, or transfer all or substantially all of our assets and the assets of our subsidiaries.

We are also required to meet specified financial covenants under the terms of our 2017 Credit Agreement. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as currency exchange rates, interest rates, changes in technology, and changes in the level of competition. Our failure to comply with any of these restrictions or covenants may result in an event of default under our 2017 Credit Agreement and other loan obligations, which could permit acceleration of the debt under those instruments and require us to repay the debt before its scheduled due date. If an event of default were to occur, we might not have sufficient funds available to make the payments required under our indebtedness. In addition, our inability to borrow funds under the 2017 Credit Agreement would have significant consequences for our business, including reducing funds available for acquisitions and other investments in our business; and impacting our ability to pay dividends and meet other financial obligations.

Furthermore, our 2017 Credit Agreement requires that any amounts borrowed under the facility be repaid by the maturity date in 2022. If we are unable to roll over the amounts borrowed into a new credit facility and we do not have sufficient cash to repay our borrowings, we may default under the 2017 Credit Agreement. We may need to repatriate cash from our overseas operations to fund the repayment and we would be required to pay taxes on the repatriated amounts. Such repatriation would have an adverse effect on our effective tax rate and cash flows.

*Our future success is substantially dependent on the continued service of our senior management and other key employees.*

Our future success is substantially dependent on the continued service of our senior management and other key employees. The loss of the services of our senior management or other key employees could make it more difficult to successfully operate our business and achieve our business goals. We also may be unable to attract qualified personnel or retain existing management, product development, sales, operational and other support personnel that are critical to our success, which could result in harm to key customer relationships, loss of key information, expertise, or know-how, and unanticipated recruitment and training costs.

*Our inability to protect our intellectual property or defend ourselves against the intellectual property claims of others could have a material adverse effect on our business. In addition, litigation to enforce our intellectual property and contractual rights or defend ourselves could result in significant litigation or licensing expense.*

We seek patent and trade secret protection for significant new technologies, products, and processes because of the length of time and expense associated with bringing new products through the development process and into the marketplace. We own numerous U.S. and foreign patents and we intend to file additional applications, as appropriate, for patents covering our products. Patents may not be issued for any pending or future patent applications owned by or licensed to us, and the claims allowed under any issued patents may not be sufficiently broad to protect our technology. Any issued patents owned by or licensed to us may be challenged, invalidated, or circumvented, and the rights under these patents may not provide us with competitive advantages. In addition, competitors may design around our technology, copy our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, which could make it

easier for competitors to capture increased market share. In addition, as our patents expire, we rely on trade secrets and proprietary know-how to protect our products. We cannot be sure the steps we have taken, or will take in the future, will be adequate to deter misappropriation of our proprietary information and intellectual property. Of particular concern are developing countries, such as China, where the laws, courts, and administrative agencies may not protect our intellectual property rights as fully as in the United States or Europe.

We seek to protect trade secrets and proprietary know-how, in part, through confidentiality and non-competition agreements with our collaborators, employees, and consultants. These agreements may be breached, we may not have adequate remedies for any breach, and our trade secrets may otherwise become known or be independently developed by our competitors, or our competitors may otherwise gain access to our intellectual property.

We could incur substantial costs to defend ourselves in suits brought against us, including for alleged infringement of third-party rights, or in suits in which we may assert our intellectual property or contractual rights against others. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

*Our share price fluctuates and experiences price and volume volatility.*

Stock markets in general and our common stock in particular experience significant price and volume volatility from time to time. The market price and trading volume of our common stock may continue to be subject to significant fluctuations due not only to general stock market conditions but also to a change in sentiment in the market regarding our operations, business prospects, or future funding. Given the nature of the markets in which we participate and the volatility of orders, we may not be able to reliably predict future revenues and profitability, and unexpected changes may cause us to adjust our operations. A large proportion of our costs are fixed, due in part to our significant selling, research and development, and manufacturing costs. Thus, small declines in revenues could disproportionately affect our operating results. Other factors that could affect our share price and quarterly operating results include:

- changes in the assumptions used for revenue recognized over time;
- fluctuations in revenues due to customer-initiated delays in product shipments;
- failure of a customer to comply with an order's contractual obligations or inability of a customer to provide financial assurances of performance;
- adverse changes in demand for and market acceptance of our products;
- failure of our products to pass contractually agreed upon acceptance tests, which would delay or prohibit recognition of revenues under applicable accounting guidelines;
- competitive pressures resulting in lower sales prices for our products;
- adverse changes in the process industries we serve;
- delays or problems in our introduction of new products;
- delays or problems in the manufacture of our products;
- our competitors' announcements of new products, services, or technological innovations;
- contractual liabilities incurred by us related to guarantees of our product performance;
- increased costs of raw materials or supplies, including the cost of energy;
- changes in the timing of product orders;
- changes in the estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, or expenses;
- the impact of acquisition accounting, including the treatment of acquisition and restructuring costs as period costs;
- fluctuations in our effective tax rate;
- the operating and share price performance of companies that investors consider to be comparable to us; and
- changes in global financial markets and global economies and general market conditions.

*Adverse changes to the soundness of financial institutions could affect us.*

We have relationships with many financial institutions, including lenders under our credit facilities and insurance underwriters, and from time to time we execute transactions with counterparties in the financial industry, such as our interest rate swap arrangements and other hedging transactions. In addition, our subsidiaries in China often hold banker's acceptance drafts that are received from customers in the normal course of business. These drafts may be discounted or used to pay vendors prior to the scheduled maturity date or submitted to an acceptance bank for payment at the scheduled maturity date. These financial institutions or counterparties could be adversely affected by volatile conditions in the financial markets, economic

downturns, and difficult economic conditions. These conditions could result in financial instability, bankruptcy, or other adverse effects at these financial institutions or counterparties. We may not be able to access credit facilities in the future, complete transactions as intended, or otherwise obtain the benefit of the arrangements we have entered into with such financial parties, which could adversely affect our business and results of operations.

*We are subject to risks associated with environmental laws and regulations.*

The manufacturing of our products requires the use of hazardous materials that are subject to a broad array of environmental health and safety laws and regulations. Our failure to manage the use, transportation, emissions, discharge, storage, recycling, or disposal of hazardous materials could lead to increased costs or regulatory penalties, fines and legal liability. Our ability to expand, modify or operate our manufacturing facilities in the future may be impeded by environmental regulations, such as air quality and wastewater requirements. The Chinese government has pledged to tackle the country's hazardous smog, and authorities try to clear the skies ahead of high profile events, which prompt authorities to impose strict pollution control measures. Regulators have in the past and may in the future temporarily restrict our manufacturing in a particular geographic location as a result of pollution levels in China generally. Environmental laws and regulations could also require us to acquire pollution abatement or remediation equipment, modify product designs, or incur other expenses. Climate change may also pose regulatory and environmental risks that could harm our results of operations and affect the way we conduct business. For example, climate change regulation could result in increased manufacturing costs associated with air pollution control requirements, and increased or new monitoring, recordkeeping, and reporting of greenhouse gas emissions. We also see the potential for higher energy costs driven by climate change regulations. Furthermore, many of our operations are located in regions that may become increasingly vulnerable due to climate change. While we recycle and reuse a portion of the water that our manufacturing facilities use, we may have difficulties obtaining sufficient water to fulfill our operational needs. These risks could harm our business and results of operations.

*Anti-takeover provisions in our charter documents and under Delaware law could prevent or delay transactions that our shareholders may favor.*

Provisions of our charter and bylaws may discourage, delay, or prevent a merger or acquisition that our shareholders may consider favorable, including transactions in which shareholders might otherwise receive a premium for their shares. For example, these provisions:

- authorize the issuance of "blank check" preferred stock without any need for action by shareholders;
- provide for a classified board of directors with staggered three-year terms;
- require supermajority shareholder voting to effect various amendments to our charter and bylaws;
- eliminate the ability of our shareholders to call special meetings of shareholders;
- prohibit shareholder action by written consent; and
- establish advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by shareholders at shareholder meetings.

Prior to July 2011, we had a shareholder rights plan, which may have had anti-takeover effects under certain circumstances. This shareholder rights plan expired by its terms in July 2011 and was not renewed by our board of directors. However, our board of directors could adopt a new shareholder rights plan in the future that could have anti-takeover effects and might discourage, delay, or prevent a merger or acquisition that our board of directors does not believe is in our best interests and those of our shareholders, including transactions in which shareholders might otherwise receive a premium for their shares.

*We have not independently verified the results of third-party research or confirmed assumptions or judgments on which they may be based, and the forecasted and other forward-looking information contained therein is subject to inherent uncertainties.*

We refer in this report and other documents that we file with the SEC to historical, forecasted and other forward-looking information published by sources such as Resource Information Systems Inc., Forest Economic Advisors, the U.S. Census Bureau, and various market news agencies that we believe to be reliable. However, we have not independently verified this information, and with respect to the forecasted and forward-looking information, have not independently confirmed the assumptions and judgments upon which such information is based. Forecasted and other forward-looking information is necessarily based on assumptions regarding future occurrences, events, conditions and circumstances and subjective judgments relating to various matters, and is subject to inherent uncertainties. Actual results may differ materially from the results expressed or implied by, or based upon, such forecasted and forward-looking information.

**Item 1B. Unresolved Staff Comments**

Not applicable.

**Item 2. Properties**

We believe that our facilities are in good condition and are suitable and adequate for our present operations. We do not anticipate significant difficulty in obtaining lease renewals or alternative space as needed. The location and general character of our principal properties as of year-end 2017 are as follows:

*Papermaking Systems Segment*

We own approximately 1,944,000 square feet and lease approximately 474,000 square feet, under leases expiring on various dates ranging from 2018 to 2027, of manufacturing, engineering, and office space. In addition, in China, we lease the land associated with our buildings under long-term leases, which expire on dates ranging from 2049 to 2061. Our principal engineering and manufacturing facilities are located in Vitry-le-Francois, France; Jining, China; Valinhos, Brazil; Three Rivers, Michigan, United States; Lebanon, Ohio, United States; Anderson, South Carolina, United States; Georgsmarienhutte, Germany; Auburn, Massachusetts, United States; Theodore, Alabama, United States; Weesp, The Netherlands; Alfreton, England; Wuxi, China; Guadalajara, Mexico; Bury, England; Mason, Ohio, United States; and Huskvarna, Sweden.

*Wood Processing Systems Segment*

We own approximately 225,000 square feet and lease approximately 87,000 square feet, under leases expiring on various dates ranging from 2018 to 2032, of manufacturing, engineering, and office space. In addition, in Sidney, British Columbia, Canada, we lease the land associated with our building under a long-term lease, which expires in 2032. Our principal engineering and manufacturing facilities are located in Sidney, British Columbia, Canada; Lohja, Finland; Surrey, British Columbia, Canada; and Pell City, Alabama, United States.

*Fiber-based Products*

We own approximately 31,000 square feet of manufacturing and office space located in Green Bay, Wisconsin, United States. We also lease approximately 58,000 square feet of manufacturing space located in Green Bay, Wisconsin, United States on a tenant-at-will basis.

*Corporate*

We lease approximately 15,000 square feet in Westford, Massachusetts, United States, for our corporate headquarters under a lease expiring in 2023.

**Item 3. Legal Proceedings**

Not applicable.

**Item 4. Mine Safety Disclosures**

Not applicable.



## PART II

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

Our common stock trades on the New York Stock Exchange under the symbol "KAI". The closing market price on the New York Stock Exchange for our common stock on February 16, 2018 was \$96.80 per share.

The following table sets forth the high and low sales prices of our common stock for 2017 and 2016, as reported in the consolidated transaction reporting system.

Quarter	December 30, 2017		December 31, 2016	
	High	Low	High	Low
First.....	\$ 63.70	\$ 56.15	\$ 45.99	\$ 33.38
Second.....	81.55	57.55	53.16	44.24
Third.....	99.58	74.65	56.57	50.59
Fourth.....	114.00	96.05	64.75	49.20

The following table sets forth the per share dividends declared on our common stock for 2017 and 2016.

Quarter	December 30, 2017	December 31, 2016
First.....	\$ 0.21	\$ 0.19
Second.....	\$ 0.21	\$ 0.19
Third.....	\$ 0.21	\$ 0.19
Fourth.....	\$ 0.21	\$ 0.19

The payment of dividends in the future will be at the discretion of our board of directors and will depend upon our earnings, capital requirements, and financial condition, among other factors. The payment of cash dividends is subject to our compliance with the consolidated leverage ratio contained in our 2017 Credit Agreement.

*Holders of Common Stock*

As of February 16, 2018, we had approximately 2,667 holders of record of our common stock. This does not include holdings in street or nominee name.

*Issuer Purchases of Equity Securities*

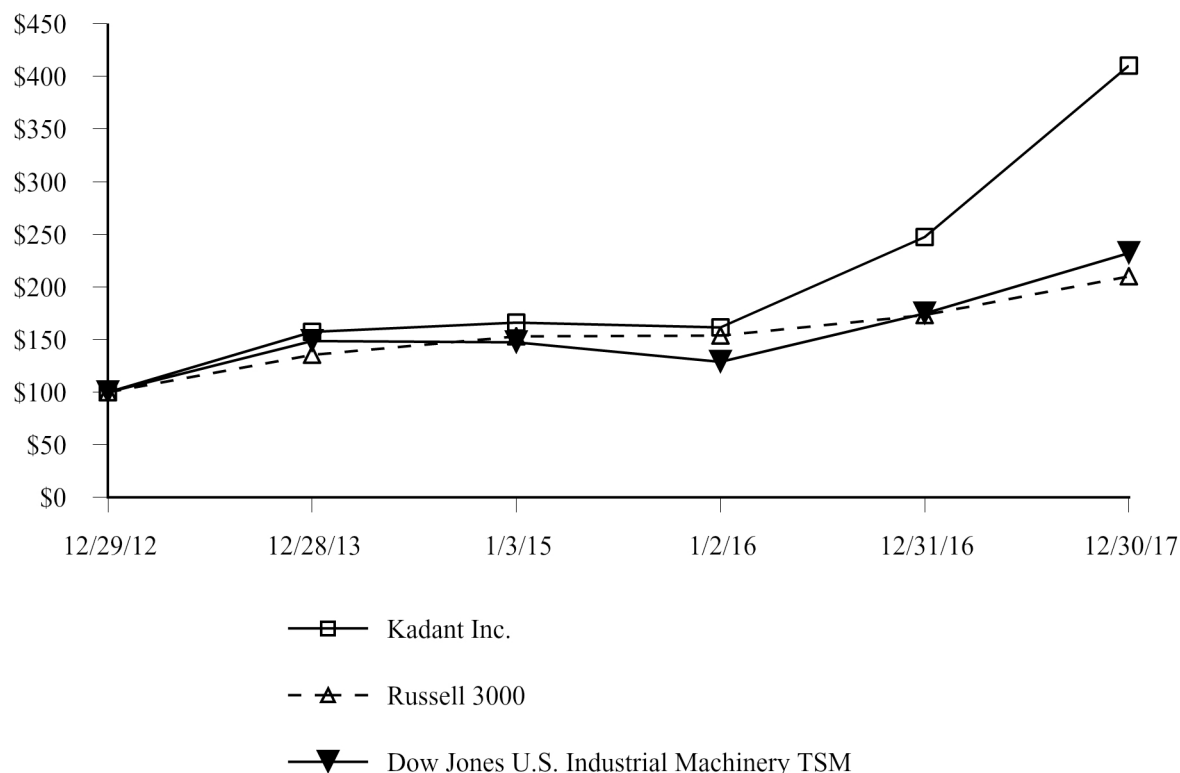
We did not repurchase any shares of our common stock during the fourth quarter of 2017.

## Kadant Inc.

### Performance Graph

This performance graph compares the cumulative, five-year total shareholder return assuming an investment of \$100 (and the reinvestment of dividends) in our common stock, the Russell 3000 Stock Index, and the Dow Jones U.S. Industrial Machinery TSM Index. Our common stock trades on the New York Stock Exchange under the ticker symbol "KAI." Because our fiscal year ends on a Saturday, the graph values are calculated using the last trading day prior to the end of our fiscal year.

**COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN**  
**Among Kadant Inc., the Russell 3000 Index, and the Dow Jones U.S. Industrial Machinery TSM Index**



	<u>12/29/2012</u>	<u>12/28/2013</u>	<u>1/3/2015</u>	<u>1/2/2016</u>	<u>12/31/2016</u>	<u>12/30/2017</u>
Kadant Inc. ....	100.00	157.30	165.97	161.38	247.12	410.07
Russell 3000.....	100.00	135.29	152.82	153.63	173.20	209.80
Dow Jones U.S. Industrial Machinery TSM	100.00	148.46	147.23	128.81	174.72	231.85

**Item 6. Selected Financial Data**

The following selected financial data should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” our consolidated financial statements and related notes, and other financial data included elsewhere in this Annual Report on Form 10-K. The consolidated statements of income data for the fiscal years 2017, 2016 and 2015 and the consolidated balance sheet data at fiscal year-end 2017 and 2016 are derived from our audited consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. The consolidated statements of income data for fiscal years 2014 and 2013 and the consolidated balance sheet data at fiscal year-end 2015, 2014 and 2013 are derived from our audited consolidated financial statements that are not included in this Annual Report on Form 10-K.

(In thousands, except per share amounts)	December 30, 2017	December 31, 2016	January 2, 2016	January 3, 2015	December 28, 2013
<b>Statement of Income Data (a)</b>					
Revenues (b) .....	\$ 515,033	\$ 414,126	\$ 390,107	\$ 402,127	\$ 344,499
Operating Income .....	60,753	45,573	50,119	42,086	33,303
<b>Amounts Attributable to Kadant:</b>					
Income from Continuing Operations .....	31,092	32,074	34,315	28,682	23,481
Income (Loss) from Discontinued Operation .....	—	3	74	(23)	(62)
Net Income (c) .....	<u>\$ 31,092</u>	<u>\$ 32,077</u>	<u>\$ 34,389</u>	<u>\$ 28,659</u>	<u>\$ 23,419</u>
<b>Earnings per Share for Continuing Operations:</b>					
Basic .....	\$ 2.83	\$ 2.95	\$ 3.16	\$ 2.61	\$ 2.11
Diluted .....	\$ 2.75	\$ 2.88	\$ 3.09	\$ 2.56	\$ 2.07
<b>Earnings per Share:</b>					
Basic .....	\$ 2.83	\$ 2.95	\$ 3.16	\$ 2.61	\$ 2.10
Diluted .....	\$ 2.75	\$ 2.88	\$ 3.10	\$ 2.56	\$ 2.07
Cash Dividends Declared per Common Share .....	\$ 0.84	\$ 0.76	\$ 0.68	\$ 0.60	\$ 0.50
<b>Balance Sheet Data</b>					
Working Capital (d) .....	\$ 133,793	\$ 118,437	\$ 108,492	\$ 96,504	\$ 106,486
Total Assets .....	761,094	470,691	415,498	413,747	442,168
Long-Term Obligations (e) .....	241,384	65,768	26,000	25,250	38,010
Stockholders' Equity .....	332,504	284,279	267,945	265,459	270,421

(a) Fiscal years 2017, 2016, 2015 and 2013 each contained 52 weeks and fiscal year 2014 contained 53 weeks.

(b) Includes incremental revenues of \$69.4 million in 2017, \$40.8 million in 2016 and \$29.6 million in 2014 primarily from our acquisitions of NII FPG and Unaflex in 2017, PAALGROUP (PAAL) in 2016 and a Wood Processing Systems acquisition in 2013, respectively.

(c) Includes a discrete provisional income tax expense of \$7.5 million, net in 2017 related to the 2017 Tax Act.

(d) Includes net current deferred tax assets of \$9.5 million in 2014 and \$10.1 million in 2013. We adopted Accounting Standards Update (ASU) No. 2015-07 for year-end 2015, which required that deferred tax assets and liabilities be classified as non-current. Prior period amounts have not been restated.

(e) Includes additional borrowings related to the acquisitions of NII FPG and Unaflex in 2017 and PAAL in 2016.

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

The following discussion of our financial condition and results of operations should be read together with the financial statements and the related notes set forth in Item 8. "Financial Statements and Supplementary Data." The following discussion also contains forward-looking statements that involve a number of risks and uncertainties. See Part I, "Forward-Looking Statements" for a discussion of the forward-looking statements contained below and Part I, Item 1A. "Risk Factors" for a discussion of certain risks that could cause our actual results to differ materially from the results anticipated in such forward-looking statements.

### Overview

#### *Company Overview*

We are a leading global supplier of equipment and critical components used in process industries worldwide. In addition, we manufacture granules made from papermaking by-products. We have a diverse and large customer base, including most of the world's major paper, lumber and OSB manufacturers, and our products, technologies, and services play an integral role in enhancing process efficiency, optimizing energy utilization, and maximizing productivity in resource-intensive industries.

Our continuing operations are comprised of two reportable operating segments, Papermaking Systems and Wood Processing Systems, and a separate product line, Fiber-based Products. Through our Papermaking Systems segment, we develop, manufacture, and market a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Our principal products include custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.

Through our Wood Processing Systems segment, we develop, manufacture, and market stranders, debarkers, chippers, and logging machinery used in the harvesting and production of lumber and OSB. Through this segment, we also provide refurbishment and repair of pulping equipment for the pulp and paper industry.

Through our Fiber-based Products business, we manufacture and sell biodegradable, absorbent granules derived from papermaking by-products for use primarily as carriers for agricultural, home lawn and garden, and professional lawn, turf and ornamental applications, as well as for oil and grease absorption.

#### *2017 Acquisitions*

On August 14, 2017, we acquired certain assets of Unaflex for \$31.3 million in cash, subject to a post-closing adjustment. Unaflex, located principally in South Carolina, is a leading manufacturer of expansion joints and related products for process industries. This acquisition complements our existing Fluid-Handling product line within our Papermaking Systems segment. Revenues for Unaflex were \$17.5 million for the twelve months ended December 31, 2016.

On July 5, 2017, we acquired the forest products business of NII FPG pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for \$170.8 million, net of cash acquired. NII FPG is a global leader in the design and manufacture of equipment used by sawmills, veneer mills, and other manufacturers in the forest products industry. NII FPG also designs and manufactures logging equipment used in harvesting timber from forest plantations. This acquisition extends our presence deeper into the forest products industry and complements our existing Wood Processing Systems segment. Revenues for NII FPG were approximately \$81.0 million for the twelve months ended December 31, 2016.

#### *2016 Acquisition*

On April 4, 2016, we acquired all the outstanding shares of RT Holding GmbH, the parent corporation of a group of companies known as the PAALGROUP (PAAL), for approximately 49.7 million euros, net of cash acquired, or approximately \$56.6 million. We paid additional consideration of \$0.2 million to the sellers in 2017. PAAL, which has operations in Germany, the United Kingdom, France and Spain, manufactures balers and related equipment used in the processing of recyclable and waste materials. This acquisition, which is included in our Papermaking Systems segment's Stock-Preparation product line, broadened our product portfolio and extended our presence deeper into recycling and waste management.

#### *International Sales*

Approximately 65% in 2017 and 60% in 2016 of our sales were to customers outside the United States, mainly in Europe, Asia and Canada. The increase in the percentage of sales to customers outside the United States in 2017 was primarily due to the acquisition of the forest products business of NII FPG. We generally seek to charge our customers in the same

currency in which our operating costs are incurred. However, our financial performance and competitive position can be affected by currency exchange rate fluctuations affecting the relationship between the U.S. dollar and foreign currencies. We seek to reduce our exposure to currency fluctuations through the use of forward currency exchange contracts. We may enter into forward contracts to hedge certain firm purchase and sale commitments denominated in currencies other than our subsidiaries' functional currencies.

#### *Application of Critical Accounting Policies and Estimates*

Management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of our consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Our actual results may differ from these estimates under different assumptions or conditions.

Critical accounting policies are defined as those that entail significant judgments and uncertainties, and could potentially result in materially different results under different assumptions and conditions. We believe that our most critical accounting policies upon which our financial position depends, and which involve the most complex or subjective decisions or assessments, are those described below. For a discussion on the application of these and other accounting policies, see Note 1 to the consolidated financial statements.

*Revenue Recognition.* Most of our revenue is recognized under Accounting Standards Codification (ASC) 605, "Revenue Recognition" (ASC 605), when the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or service has been rendered, the sales price is fixed or determinable, and collectability is reasonably assured. We also enter into arrangements with customers that have multiple deliverables, such as equipment and installation, and we recognize revenues and profits on certain long-term contracts using the percentage-of-completion and completed-contract methods of accounting.

Under ASC 605, when the terms of sale include customer acceptance provisions, and compliance with those provisions cannot be demonstrated until customer acceptance, we recognize revenues upon such acceptance. We include in revenues amounts invoiced for shipping and handling with the corresponding costs reflected in cost of revenues. Provisions for discounts, warranties, returns, and other adjustments are provided for in the period in which the related sales are recorded. Sales taxes, value-added taxes and certain excise taxes collected from customers and remitted to governmental authorities are accounted for on a net basis and are therefore excluded from revenue.

Most of our revenue is recognized in accordance with the accounting policies in the preceding paragraph. However, when a sale arrangement involves multiple elements, such as equipment and installation, we consider the guidance in ASC 605. Such transactions are evaluated to determine whether the deliverables in the arrangement represent separate units of accounting based on the following criteria: the delivered item has value to the customer on a stand-alone basis, and if the contract includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially under our control. Revenue is allocated to each unit of accounting or element based on relative selling prices and is recognized as each element is delivered or completed. We determine relative selling prices by using either vendor-specific objective evidence (VSOE) if that exists, or third-party evidence of selling price. When neither VSOE or third-party evidence of selling price exists for a deliverable, we use our best estimate of the selling price for that deliverable. In cases in which elements cannot be treated as separate units of accounting, the elements are combined into a single unit of accounting for revenue recognition purposes.

Revenues recorded under the percentage-of-completion method of accounting pursuant to ASC 605 were \$27.7 million in 2017, \$23.3 million in 2016, and \$32.1 million in 2015. We determine the percentage of completion by comparing the actual costs incurred to date to an estimate of total costs to be incurred on each contract. If a loss is indicated on any contract in process, a provision is made currently for the entire loss. Our contracts generally provide for billing of customers upon the attainment of certain milestones specified in the contract. Revenues earned on contracts in process in excess of billings are classified as unbilled contract costs and fees, and amounts billed in excess of revenues earned are classified as billings in excess of contract costs and fees. The estimation process under the percentage-of-completion method affects the amounts reported in our consolidated financial statements. A number of internal and external factors affect our percentage-of-completion and cost of sales estimates, including labor rate and efficiency variances, estimates of warranty costs, estimated future material prices from vendors, and customer specification and testing requirements. Although we make every effort to ensure the accuracy of our estimates in the application of this accounting policy, if our actual results were to differ from our estimates, or if we were to use different assumptions, it is possible that materially different amounts could be reported as revenues in our consolidated financial statements.

For long-term contracts that do not meet the criteria under ASC 605-35 to be accounted for under the percentage-of-completion method, we recognize revenue using the completed-contract method. When using the completed-contract method, we recognize revenue when the contract is substantially complete, the product is delivered, and, if applicable, the customer acceptance criteria are met.

*Income Taxes.* The 2017 Tax Act was signed into law on December 22, 2017 and is generally effective for tax years beginning January 1, 2018. The most significant impacts of the 2017 Tax Act to us for the year-ended 2017 include a decrease in the federal corporate income tax rate from 35% to 21% and a one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings. For 2017, we recorded a provisional net income tax expense of \$7.5 million, including the impact of state taxes, which consists of a provisional amount for our one-time mandatory transition tax of \$10.3 million, partially offset by a provisional net tax benefit of \$2.8 million for the re-measurement of our deferred income tax assets and liabilities due to the decrease in the federal corporate income tax rate. We anticipate offsetting the one-time mandatory transition tax against existing tax attributes, which will reduce the required federal payment to approximately \$4.6 million over the elected eight-year payment period.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) related to the income tax accounting implications of the 2017 Tax Act, which provides guidance on accounting for the 2017 Tax Act's impact. SAB 118 provides a measurement period, which in no case should extend beyond one year from the 2017 Tax Act enactment date, during which a company acting in good faith may complete the accounting for the impacts of the 2017 Tax Act under ASC Topic 740. In accordance with SAB 118, a company must reflect the income tax effects of the 2017 Tax Act in the reporting period in which the accounting under ASC Topic 740 is complete. To the extent that a company's accounting for certain income tax effects of the 2017 Tax Act is incomplete, a company can determine a reasonable estimate for those effects and record a provisional estimate in the financial statements in the first reporting period in which a reasonable estimate can be determined. In accordance with SAB 118, we recognized the provisional tax impacts, outlined above, related to the re-measurement of our deferred income tax assets and liabilities and the one-time mandatory transition tax on deemed repatriation of unremitted foreign earnings. The ultimate impact may differ from the provisional amounts, due to, among other things, the significant complexity of the 2017 Tax Act and anticipated additional regulatory guidance that may be issued by the Internal Revenue Service, changes in analysis, interpretations and assumptions we made and actions we may take as a result of the 2017 Tax Act.

While the 2017 Tax Act provides for a territorial tax system, beginning in 2018, it includes two new U.S. tax base erosion provisions, GILTI and BEAT. We have elected to account for any potential GILTI tax in the period in which it is incurred, and therefore have not provided any deferred income tax impacts of GILTI in our consolidated financial statements for 2017. In addition, we do not expect to be subject to the minimum tax pursuant to the BEAT provisions.

We operate in numerous countries under many legal forms and, as a result, are subject to the jurisdiction of numerous domestic and non-U.S. tax authorities, as well as to tax agreements and treaties among these governments. Determination of taxable income in any jurisdiction requires the interpretation of the related tax laws and regulations and the use of estimates and assumptions regarding significant future events, such as the amount, timing and character of deductions, permissible revenue recognition methods under the tax law and the sources and character of income and available tax credits. Changes in tax laws, regulations, agreements and treaties, currency-exchange restrictions or our level of operations or profitability in each taxing jurisdiction could have an impact upon the amount of current and deferred tax balances and our results of operations.

We estimate the degree to which our deferred tax assets on deductible temporary differences and tax loss or credit carryforwards will result in an income tax benefit based on the expected profitability by tax jurisdiction, and provide a valuation allowance for these deferred tax assets if it is more likely than not that they will not be realized in the future. If it were to become more likely than not that these deferred tax assets would be realized, we would reverse the related valuation allowance. Our tax valuation allowance was \$10.8 million at year-end 2017. Should our actual future taxable income by tax jurisdiction vary from our estimates, additional valuation allowances or reversals thereof may be necessary. When assessing the need for a valuation allowance in a tax jurisdiction, we evaluate the weight of all available evidence to determine whether it is more likely than not that some portion or all of the deferred income tax assets will not be realized. As part of this evaluation, we consider our cumulative three-year history of earnings before income taxes, taxable income in prior carryback years, future reversals of existing taxable temporary differences, prudent and feasible tax planning strategies, and expected future results of operations. At year-end 2017, we continued to maintain a valuation allowance in the United States against certain of our state operating loss carryforwards due to the uncertainty of future profitability in these state jurisdictions in the United States. At year-end 2017, we maintained valuation allowances in certain foreign jurisdictions because of the uncertainty of future profitability. In the ordinary course of business there is inherent uncertainty in quantifying our income tax positions. It is our policy to provide for uncertain tax positions and the related interest and penalties based upon our assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. At year-end 2017, we believe that we have appropriately accounted for any liability for unrecognized tax benefits. To the extent we prevail in matters for which a liability for an unrecognized tax benefit is established or are required to pay amounts in excess of the liability, our effective tax rate in a given financial statement period may be affected.

The 2017 Tax Act eliminates the deferral of U.S. income tax on accumulated foreign earnings by imposing a one-time mandatory transition tax on such earnings. As a result, we recorded a provisional amount of \$10.3 million for U.S. federal and state income taxes on untaxed accumulated unremitted foreign earnings in the fourth quarter of 2017. We intend to repatriate the distributable reserves of select foreign subsidiaries back to the United States, and in the fourth quarter of 2017, we recorded \$2.7 million of foreign income and withholding tax associated with these foreign earnings that we plan to repatriate in 2018. Except for these select foreign subsidiaries, we intend to reinvest indefinitely the earnings of our international subsidiaries in order to support the current and future capital needs of their operations, including the repayment of our foreign debt.

*Valuation of Goodwill and Intangible Assets.* We evaluate the recoverability of goodwill and indefinite-lived intangible assets as of the end of each fiscal year, or more frequently if events or changes in circumstances, such as a significant decline in sales, earnings, or cash flows, or material adverse changes in the business climate, indicate that the carrying value of an asset might be impaired.

At year-end 2017, we performed a qualitative goodwill impairment analysis and determined that the asset was not impaired. This impairment analysis included an assessment of certain qualitative factors including, but not limited to, the results of prior fair value calculations, the movement of our share price and market capitalization, the reporting unit and overall financial performance, and macroeconomic and industry conditions. We considered the qualitative factors and weighed the evidence obtained, and determined that it was not more likely than not that the fair value of any of the reporting units was less than its carrying amount. Although we believe the factors considered in the impairment analysis are reasonable, significant changes in any one of the assumptions used could have produced a different result.

At year-end 2017, we performed a quantitative impairment analysis on our indefinite-lived intangible assets and determined that the assets were not impaired.

Intangible assets subject to amortization are evaluated for impairment if events or changes in circumstances indicate that the carrying value of an asset might be impaired. No indicators of impairment were identified in 2017.

We use assumptions and estimates in determining the fair value of assets acquired and liabilities assumed in a business combination. The determination of the fair value of intangible assets, which represent a significant portion of the purchase price in many of our acquisitions, requires the use of significant judgment regarding the fair value; and whether such intangibles are amortizable or non-amortizable and, if amortizable, the period and the method by which the intangible asset will be amortized. We estimate the fair value of acquisition-related intangible assets principally based on projections of cash flows that will arise from identifiable intangible assets of acquired businesses. The projected cash flows are discounted to determine the present value of the assets at the date of acquisition. Our judgments and assumptions regarding the determination of the fair value of an intangible asset or goodwill associated with an acquired business could change as future events impact such fair values. A prolonged economic downturn, weakness in demand for our products, especially capital equipment products, or contraction in capital spending by paper companies, lumber mills, sawmills or OSB manufacturers in our key markets could negatively affect the revenue and profitability assumptions used in our assessment of goodwill and intangible assets, which could result in additional impairment charges. Any future impairment loss could have a material adverse effect on our long-term assets and operating expenses in the period in which an impairment is determined to exist.

*Inventories.* We value our inventory at the lower of the actual cost (on a first-in, first-out; or weighted average basis) or net realizable value and include materials, labor, and manufacturing overhead. We regularly review inventory quantities on hand and compare these amounts to historical and forecasted usage of and demand for each particular product or product line. We record a charge to cost of revenues for excess and obsolete inventory to reduce the carrying value of the inventories to net realizable value. Inventory write-downs have historically been within our expectations and the provisions established. A significant decrease in demand for our products could result in an increase in the amount of excess inventory quantities on hand, resulting in a charge for the write-down of that inventory in that period. In addition, our estimates of future product usage or demand may prove to be inaccurate, resulting in an understated or overstated provision for excess and obsolete inventory. Therefore, although we make every effort to ensure the accuracy of our forecasts of future product usage and demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of our inventory and our reported operating results.

*Pension and Other Post-Retirement Benefits.* We sponsor a noncontributory defined benefit retirement plan, which is closed to new participants, for eligible employees at one of our U.S. divisions and our corporate office. At year-end 2017, our unfunded benefit obligation related to this plan was \$3.0 million and the fair value of plan assets was \$31.8 million. In addition, several of our U.S. and non-U.S. subsidiaries sponsor defined benefit pension and other post-retirement benefit plans with an aggregate unfunded benefit obligation of \$8.4 million and a fair value of plan assets of \$0.6 million at year-end 2017.

The cost and obligations of these arrangements are calculated using many assumptions to estimate the benefits that the employee earns while working, the amount of which cannot be completely determined until the benefit payments cease. Major assumptions used in accounting for these employee benefit plans include the discount rate, expected return on plan assets and rate of increase in employee compensation levels. Assumptions are determined based on Company data and appropriate market indicators in consultation with third-party actuaries, and are evaluated each year as of the plans' measurement dates. The fair value of plan assets is determined based on quoted market prices and observable market inputs. The unrecognized actuarial loss before tax associated with these plans totaled \$10.0 million at year-end 2017, \$0.7 million of which we expect to recognize in 2018. Should any of these assumptions change, they would have an effect on net periodic benefit costs and the unfunded benefit obligation. The projected benefit obligation and expense associated with these plans are sensitive to changes in the discount rate. For the noncontributory defined benefit pension plan at one of our U.S. divisions, a 50 basis point decrease in the 2017 discount rate would have resulted in an increase in net periodic benefit costs of \$0.2 million and an increase in the projected benefit obligation of \$2.8 million.

## ***Industry and Business Outlook***

Our products are primarily sold in global process industries and used to produce packaging, tissue, OSB, and lumber, among other products. For 2017, major markets for our products were as follows:

### *Packaging, Tissue and Other Paper*

Approximately 54% of our revenue was from the sale of products that support packaging, tissue, and other paper grades excluding printing and writing and newsprint. Consumption of packaging, which is primarily comprised of containerboard and boxboard, is driven by many factors, including regional economic conditions, consumer spending on non-durable goods, increased use of e-commerce, demand for food and beverage packaging, and greater urbanization in developing regions. The growth of e-commerce in particular has caused and is expected to continue to cause increased demand for packaging grades such as linerboard used to make boxes. Consumption of tissue is fairly stable and in the developed world tends to grow with the population. For both tissue and packaging, growth rates in the developing world are expected to increase as per capita consumption of paper products increases with rising standards of living. For balers and related equipment, demand is generally driven by rising standards of living and population growth, shortage and costs of landfilling, increasing recycling rates, and environmental regulation.

### *Printing, Writing and Newsprint*

Approximately 12% of our revenue was related to products that support printing and writing paper grades as well as newsprint, which have been negatively affected by the development and increased use of digital media. While we expect the decline in the use of printing and writing and newsprint paper grades to continue due to the use of digital media, we expect global packaging and tissue production to increase modestly.

### *Wood Processing*

Approximately 19% of our revenue was from sales to manufacturers in the wood processing industries, including lumber mills, engineered wood panel producers, and sawmills, that use stranders, debarkers, and related equipment to prepare logs to be converted into OSB or lumber, and harvesting equipment to cut, gather, and remove timber from forest plantations. Demand for OSB and lumber is tied to new home construction and home remodeling in all markets we serve. The majority of OSB and lumber demand is in North America, as North American houses are more often constructed of wood compared to other parts of the world.

### *Other*

The remaining 15% of our revenue was from sales to other process industries, which tend to grow with the overall economy.

Our bookings increased 29% to \$521 million in 2017 compared to \$403 million in 2016. Bookings in 2017 included a \$63 million, or 16%, increase resulting from our acquisitions and a \$2 million, or 1%, increase from the favorable effect of foreign currency translation. Excluding the impact of the acquisitions and foreign currency translation, our bookings in 2017 increased 13% compared to 2016, primarily due to strong performance in our Stock-Preparation and Fluid-Handling product lines. Bookings for our capital equipment tend to be variable and are dependent on regional economic conditions and the level of capital spending by our customers, among other factors. By comparison, demand for our parts and consumables products tends to be more predictable. We believe our large installed base provides us with a relatively stable parts and consumables business that yields higher margins than our capital equipment business. In 2017, approximately 61% of our revenue was from the sale of parts and consumables products. Bookings for our parts and consumables products increased to \$314 million in 2017, or 60% of total bookings, compared to \$258 million, or 64% of total bookings, in 2016, primarily due to bookings of \$38 million from our acquisitions.

### *North America*

The largest and most impactful regional market for our products in 2017 was North America, and we expect this will continue to be the case in 2018. The pulp and paper market in North America tends to be stable. The strength of the U.S. housing market has led to continued growth in our Wood Processing product line, which we recently expanded with our forest products business acquisition. We expect to see continued strength in this market as home ownership among millennials continues to increase. Projected continued growth in housing starts for the next several years is expected to have a positive impact on demand for structural wood panels, which includes OSB and lumber. In addition, the new U.S. tax law and repatriation of offshore cash may result in additional capital investment activity by our customers in the United States. Our bookings in North America were \$234 million in 2017, up 20%, compared to \$195 million in 2016, including bookings of \$32 million from our acquisitions. According to Resource Information Systems Inc. (RISI) reports, U.S. demand for containerboard, which includes linerboard and corrugated medium, was fueled by e-commerce growth in 2017. As a result, containerboard



production in 2017 increased 3.1% compared to 2016 and containerboard mill operating rates were robust at 97% to 99% in 2017. For 2017, housing starts increased 2.4% to 1.202 million, the highest level since 2007.

### *Europe*

We saw increased business activity in Europe in 2017 compared to 2016, particularly in the lumber, industrial and packaging segments. Russia in particular had strong growth in demand from packaging and forest products manufacturers. We expect the solid growth in the euro zone economies in 2017 to be sustained in 2018. Our bookings in Europe were \$153 million in 2017, up 35%, compared to \$114 million in 2016, including a \$22 million increase from our acquisitions and a favorable foreign currency translation effect of \$2 million. Excluding our acquisitions and the favorable effect of foreign currency translation, our bookings in Europe increased 14% in 2017 over 2016.

### *Asia*

Our bookings in Asia were \$93 million in 2017, up 43%, compared to \$65 million in 2016. The market in Asia continued to be healthy for both our capital products and parts and consumables products in 2017. We saw continued strength in project activity in containerboard grades during 2017, particularly in China. We expect to see a gradual weakening of demand for pulp and paper-related capital projects in China in the second half of 2018. However, while OSB is a fairly new product in China and its consumption is low compared to North America, we foresee increased demand in China for our stranding equipment used in OSB mills in 2018 as producers explore the use of OSB in the production of furniture.

### *Rest of World*

Our bookings in the rest of the world were \$41 million in 2017, up 39%, compared to \$29 million in 2016, including bookings of \$8 million from our acquisitions.

### *Guidance*

For 2018, we expect to achieve full-year diluted earnings per share (EPS) of \$4.74 to \$4.84 in 2018 on revenue of \$605 million to \$615 million. The 2018 guidance assumes estimated pre-tax restructuring costs of \$1.7 million, or \$0.11 per diluted share, discrete tax expense of \$0.9 million, or \$0.08 per diluted share, and pre-tax amortization expense associated with acquired backlog of \$0.2 million, or \$0.02 per diluted share. For the first quarter of 2018, we expect to achieve diluted EPS of \$0.77 to \$0.81 on revenue of \$143 million to \$146 million. The first quarter of 2018 guidance assumes estimated pre-tax restructuring costs of \$1.1 million, or \$0.07 per diluted share, discrete tax expense of \$0.9 million, or \$0.08 per diluted share, and pre-tax amortization expense associated with acquired backlog of \$0.2 million, or \$0.02 per diluted share.

## **Results of Operations**

### **2017 Compared to 2016**

#### *Revenues*

The following table presents changes in revenues by segment and product line between 2017 and 2016, and the changes in revenues by segment and product line between 2017 and 2016 excluding the effect of currency translation and acquisitions. Currency translation is calculated by converting 2017 revenues in local currency into U.S. dollars at 2016 exchange rates and then comparing this result to actual revenues in 2017. The presentation of the changes in revenues excluding the effect of currency translation and acquisitions is a non-GAAP measure. We believe this non-GAAP measure helps investors gain an understanding of our underlying operations consistent with how management measures and forecasts its performance, especially when comparing such results to prior periods. This non-GAAP measure should not be considered superior to or a substitute for the corresponding GAAP measures.

**Kadant Inc.**

(In thousands)	December 30, 2017	December 31, 2016	Increase	Currency Translation	Acquisitions	(Non-GAAP) Adjusted Increase
Stock-Preparation.....	\$ 193,838	\$ 171,378	\$ 22,460	\$ 1,829	\$ 13,311	\$ 7,320
Doctoring, Cleaning, & Filtration.....	109,631	105,938	3,693	20	—	3,673
Fluid-Handling.....	104,136	89,145	14,991	1,044	7,731	6,216
Papermaking Systems.....	407,605	366,461	41,144	2,893	21,042	17,209
Wood Processing Systems.....	95,053	36,850	58,203	954	48,363	8,886
Fiber-based Products.....	12,375	10,815	1,560	—	—	1,560
	<u>\$ 515,033</u>	<u>\$ 414,126</u>	<u>\$ 100,907</u>	<u>\$ 3,847</u>	<u>\$ 69,405</u>	<u>\$ 27,655</u>

Papermaking Systems Segment

Revenues from our Papermaking Systems segment increased \$41.1 million to \$407.6 million in 2017 from \$366.5 million in 2016, including \$21.0 million from the inclusion of revenue from acquisitions and a \$2.9 million increase from the favorable effect of foreign currency translation. Excluding acquisitions and the favorable effect of foreign currency translation, revenues increased \$17.2 million as explained in the product line discussions below.

Revenues from our Stock-Preparation product line in 2017 increased \$22.5 million, or 13%, compared to 2016, due to the inclusion of \$13.3 million of revenues in the first quarter of 2017 from PAAL, which was acquired in April 2016, and \$1.8 million from the favorable effect of foreign currency translation. Excluding the incremental PAAL revenues and the favorable effect of foreign currency translation, revenues increased \$7.3 million, or 4%, compared to 2016, primarily due to increased demand for our products at our Chinese operations that was partially offset by decreased demand for our products at our North American operations.

Revenues from our Doctoring, Cleaning, & Filtration product line in 2017 increased \$3.7 million, or 3%, compared to 2016 primarily due to increased demand for our parts and consumables products.

Revenues from our Fluid-Handling product line in 2017 increased \$15.0 million, or 17%, compared to 2016, due to the inclusion of \$7.7 million in revenues from acquisitions, principally Unaflex, and a \$1.0 million increase from the favorable effect of foreign currency translation. Excluding acquisitions and the favorable effect of foreign currency translation, revenues increased \$6.2 million, or 7%, largely due to increased demand for our parts and consumables products primarily at our North American and European operations, and, to a lesser extent, increased demand for our capital equipment at our European operations.

Wood Processing Systems Segment

Revenues from our Wood Processing Systems segment increased \$58.2 million to \$95.1 million in 2017 from \$36.9 million in 2016, principally due to the inclusion of \$48.4 million in revenues from our forest products business of NII FPG, which was acquired in July 2017, and \$1.0 million from the favorable effect of foreign currency translation. Excluding the acquisition and the favorable effect of foreign currency translation, revenues increased \$8.9 million, or 24%, primarily related to increased demand for our products due to continued strength in the U.S. housing industry.

Fiber-based Products

Revenues from our Fiber-based Products business increased \$1.6 million, or 14%, to \$12.4 million in 2017 from \$10.8 million in 2016, primarily due to increased demand for our biodegradable granular products.

*Gross Profit Margin*

Gross profit margins for 2017 and 2016 were as follows:

	December 30, 2017	December 31, 2016
Papermaking Systems.....	46.7%	45.9%
Wood Processing Systems.....	36.3%	41.0%
Fiber-based Products.....	51.2%	46.4%
	<u>44.9%</u>	<u>45.5%</u>

Papermaking Systems Segment

The gross profit margin in our Papermaking Systems segment increased to 46.7% in 2017 from 45.9% in 2016. This increase was due to higher margins on our parts and consumables products.

Wood Processing Systems Segment

The gross profit margin in our Wood Processing Systems segment decreased to 36.3% in 2017 from 41.0% in 2016 due to the amortization of \$5.0 million of acquired profit in inventory related to our recent acquisition, which lowered gross profit margin by over 520 basis points.

Fiber-based Products

The gross profit margin in our Fiber-based Products business increased to 51.2% in 2017 from 46.4% in 2016 due to the combined effects of increased revenues in 2017 and increased manufacturing efficiency related to higher production volumes.

*Selling, General and Administrative Expenses*

Selling, general and administrative (SG&A) expenses for 2017 and 2016 were as follows:

<u>(In thousands)</u>	<u>December 30, 2017</u>	<u>December 31, 2016</u>	<u>Increase</u>
Papermaking Systems.....	\$ 109,758	\$ 104,432	\$ 5,326
Wood Processing Systems.....	23,093	6,265	16,828
Corporate and Other .....	27,664	25,056	2,608
	<u>\$ 160,515</u>	<u>\$ 135,753</u>	<u>\$ 24,762</u>

SG&A expenses as a percentage of revenues decreased to 31% in 2017 from 33% in 2016 due to improved operating leverage as a result of our recent acquisitions. SG&A expenses increased \$24.7 million, or 18%, to \$160.5 million in 2017 from \$135.8 million in 2016 primarily due to the inclusion of \$16.9 million in SG&A expenses from our acquisitions and \$3.5 million of incremental acquisition transaction costs.

Papermaking Systems Segment

SG&A expenses increased \$5.4 million, or 5%, to \$109.8 million in 2017 from \$104.4 million in 2016, primarily due to \$5.2 million of incremental SG&A expenses from acquisitions.

Wood Processing Systems Segment

SG&A expenses increased \$16.8 million to \$23.1 million in 2017 from \$6.3 million in 2016 primarily due to \$11.7 million from the inclusion of SG&A expenses from our recent acquisition and \$4.8 million of acquisition transaction costs.

Corporate and Other

SG&A expenses for Corporate and Other increased \$2.6 million to \$27.7 million in 2017 from \$25.1 million in 2016 primarily due to an increase of \$2.6 million in incentive compensation expense resulting from improved operating results.

*Research and Development Expenses*

Research and development (R&D) expenses, which represented 2% of revenues in both periods, increased \$2.2 million, or 30%, to \$9.6 million in 2017 from \$7.4 million in 2016 largely due to the inclusion of R&D expenditures in businesses acquired during 2017.

*Restructuring Costs and Other Income*

Restructuring costs in 2017 of \$0.2 million were associated with severance costs for the reduction of four employees in the United States and five employees in Sweden in the Papermaking Systems segment. In 2017, we constructed a 160,000 square foot manufacturing facility in the United States, and will integrate our U.S. and Swedish stock-preparation product lines into a single manufacturing facility to achieve economies of scale and greater efficiencies. We have identified other restructuring actions related to this plan, such as the relocation of machinery and equipment, severance and abandonment of leased facilities, which will result in additional charges of approximately \$1.7 million that will be recorded in 2018 when specified criteria are met.

## Kadant Inc.

Other income in 2016 included a pre-tax gain of \$0.3 million related to the sale of real estate in Sweden for cash proceeds of \$0.4 million.

### *Interest Expense*

Interest expense increased \$2.2 million to \$3.5 million in 2017 from \$1.3 million in 2016 primarily due to interest expense on additional borrowings in the second half of 2017.

### *Provision for Income Taxes*

Our provision for income taxes was \$26.1 million in 2017 and \$12.1 million in 2016, and represented 45% and 27% of pre-tax income. The effective tax rate of 45% in 2017 was higher than our statutory rate primarily due to tax expense associated with the enactment of the 2017 Tax Act (see Note 5, *Income Taxes*, in our consolidated financial statements in this Annual Report on Form 10-K), foreign income and withholding taxes on foreign earnings not permanently reinvested, and tax expenses associated with unrecognized tax benefits and non-deductible expenses. This incremental tax expense was offset in part by tax benefits resulting from the distribution of our worldwide earnings. We expect to recognize additional tax expense of \$0.9 million in the first quarter of 2018 due to 2018 tax law changes associated with the 2017 Tax Act. The effective tax rate of 27% in 2016 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings and a favorable adjustment for the net excess income tax benefits from stock-based compensation arrangements, offset in part by tax expense associated with an increase in nondeductible expenses.

### *Income from Continuing Operations*

Income from continuing operations decreased \$0.9 million, or 3%, to \$31.6 million in 2017 compared to \$32.5 million in 2016 primarily due to increases of \$14.0 million in our provision for income taxes and \$2.3 million in our interest expense that were mostly offset by a \$15.2 million increase in our operating income (see *Revenues, Gross Profit Margin, Selling, General and Administrative Expenses, Research and Development Expenses, Restructuring Costs and Other Income, Interest Expense and Provision for Income Taxes* discussed above).

### *Recent Accounting Pronouncements*

See Note 1, under the heading “Recent Accounting Pronouncements,” to our consolidated financial statements included in this Annual Report on Form 10-K for more information on recently implemented and issued accounting standards.

## **2016 Compared to 2015**

### *Revenues*

The following table presents changes in revenues by segment and product line between 2016 and 2015, and the changes in revenues by segment and product line between 2016 and 2015 excluding the effect of currency translation and an acquisition. Currency translation is calculated by converting 2016 revenues in local currency into U.S. dollars at 2015 exchange rates and then comparing this result to actual revenues in 2016. The presentation of the changes in revenues excluding the effect of currency translation and acquisitions is a non-GAAP measure. We believe this non-GAAP measure helps investors gain an understanding of our underlying operations consistent with how management measures and forecasts its performance, especially when comparing such results to prior periods. This non-GAAP measure should not be considered superior to or a substitute for the corresponding GAAP measures.

<u>(In thousands)</u>	<u>December 31, 2016</u>	<u>January 2, 2016</u>	<u>Increase (Decrease)</u>	<u>Currency Translation</u>	<u>Acquisition</u>	<u>(Non-GAAP) Adjusted (Decrease) Increase</u>
Stock-Preparation.....	\$ 171,378	\$ 148,341	\$ 23,037	\$ (1,594)	\$ 40,783	\$ (16,152)
Doctoring, Cleaning, & Filtration.....	105,938	101,523	4,415	(3,696)	—	8,111
Fluid-Handling.....	89,145	92,797	(3,652)	(1,786)	—	(1,866)
Papermaking Systems.....	366,461	342,661	23,800	(7,076)	40,783	(9,907)
Wood Processing Systems.....	36,850	36,387	463	(1,317)	—	1,780
Fiber-based Products.....	10,815	11,059	(244)	—	—	(244)
	<u>\$ 414,126</u>	<u>\$ 390,107</u>	<u>\$ 24,019</u>	<u>\$ (8,393)</u>	<u>\$ 40,783</u>	<u>\$ (8,371)</u>

Papermaking Systems Segment

Revenues from our Papermaking Systems segment increased \$23.8 million, or 7%, to \$366.5 million in 2016 from \$342.7 million in 2015, due to the inclusion of \$40.8 million in revenues from the acquisition of PAAL, offset in part by a \$7.1 million unfavorable effect of foreign currency translation. Excluding the acquisition and the unfavorable effect of foreign currency translation, revenues in our Papermaking Systems segment decreased \$9.9 million as explained in the product line discussions below.

Revenues from our Stock-Preparation product line increased \$23.0 million, or 16%, in 2016 compared to 2015, due to the inclusion of \$40.8 million in revenues from the acquisition of PAAL, offset in part by a \$1.6 million unfavorable effect of foreign currency translation. Excluding the acquisition and the unfavorable effect of foreign currency translation, revenues decreased \$16.2 million, or 11%, in 2016 compared to 2015, due to decreased capital spending by our Chinese customers in 2016 and decreased spending by our North American customers due to general economic uncertainty. By comparison, 2015 included robust spending by our customers in North America and China for our stock-preparation products.

Revenues from our Doctoring, Cleaning, & Filtration product line increased \$4.4 million, or 4%, in 2016 compared to 2015, including a \$3.7 million unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues increased \$8.1 million, or 8%, in 2016 compared to 2015, primarily due to increased demand for our capital products at our Chinese and European operations.

Revenues from our Fluid-Handling product line decreased \$3.7 million, or 4%, in 2016 compared to 2015, including a \$1.8 million unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues decreased \$1.9 million, or 2%, in 2016 compared to 2015, primarily due to decreased demand for both our parts and consumables and capital products at our North American operations.

Wood Processing Systems Segment

Revenues from our Wood Processing Systems segment increased \$0.5 million, or 1%, to \$36.9 million in 2016 from \$36.4 million in 2015, including a \$1.3 million unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues increased \$1.8 million, or 5%, primarily due to increased demand for our parts and consumables products.

Fiber-based Products

Revenues from our Fiber-based Products business decreased \$0.3 million, or 2%, to \$10.8 million in 2016 from \$11.1 million in 2015 due to decreased demand for our biodegradable granular products.

*Gross Profit Margin*

Gross profit margins for 2016 and 2015 were as follows:

	December 31, 2016	January 2, 2016
Papermaking Systems .....	45.9%	45.9%
Wood Processing Systems.....	41.0%	47.9%
Fiber-based Products .....	46.4%	49.5%
	45.5%	46.2%

Papermaking Systems Segment

The gross profit margin in our Papermaking Systems segment was 45.9% in both 2016 and 2015. Increases in 2016 primarily due to higher gross profit margins on our capital products were offset by decreases due to the inclusion of lower gross margins from the acquisition of PAAL and a decrease in the proportion of higher-margin parts and consumables revenues.

Wood Processing Systems Segment

The gross profit margin in our Wood Processing Systems segment decreased to 41.0% in 2016 from 47.9% in 2015 primarily due to lower gross profit margins on our capital products due to targeted pricing and on our parts and consumables products due to product mix.

Fiber-based Products

The gross profit margin in our Fiber-based Products business decreased to 46.4% in 2016 from 49.5% in 2015 primarily due to decreased manufacturing efficiency related to lower production volumes.

*Selling, General and Administrative Expenses*

SG&A expenses for 2016 and 2015 were as follows:

<u>(In thousands)</u>	<u>December 31, 2016</u>	<u>January 2, 2016</u>	<u>Increase</u>
Papermaking Systems.....	\$ 104,432	\$ 93,990	\$ 10,442
Wood Processing Systems.....	6,265	5,957	308
Corporate and Other .....	25,056	22,867	2,189
	<u>\$ 135,753</u>	<u>\$ 122,814</u>	<u>\$ 12,939</u>

SG&A expenses as a percentage of revenues was 33% in 2016 and 31% in 2015. SG&A expenses increased \$13.0 million, or 11%, to \$135.8 million in 2016 from \$122.8 million in 2015 primarily due to the inclusion of \$10.7 million in SG&A expenses from PAAL and \$1.8 million in acquisition transaction costs.

Papermaking Systems Segment

SG&A expenses increased \$10.4 million, or 11%, to \$104.4 million in 2016 from \$94.0 million in 2015, due to \$10.7 million of SG&A expenses from PAAL and \$1.6 million in acquisition transaction costs. These increases were partially offset by a \$2.1 million decrease related to the favorable effect of foreign currency translation.

Wood Processing Systems Segment

SG&A expenses in our Wood Processing Systems segment increased \$0.3 million, or 5%, to \$6.3 million in 2016 from \$6.0 million in 2015.

Corporate and Other

SG&A expenses for Corporate and Other increased \$2.2 million to \$25.1 million in 2016 from \$22.9 million in 2015 primarily due to \$1.7 million of compliance-related costs and system conversion costs.

*Research and Development Expenses*

R&D expenses, which represented 2% of revenues in both periods, increased \$0.7 million, or 11%, to \$7.4 million in 2016 from \$6.7 million in 2015 primarily due to the inclusion of R&D expenses from PAAL.

*Restructuring Costs and Other Income*

Other income in 2016 included a pre-tax gain of \$0.3 million related to the sale of real estate in Sweden for cash proceeds of \$0.4 million.

Restructuring costs in 2015 included severance costs of \$0.3 million associated with the reduction of 25 employees in Canada and Brazil related to our 2015 restructuring plans. In addition, restructuring costs in 2015 also included severance costs of \$0.2 million associated with the reduction of four employees in Sweden related to our 2014 restructuring plans. These actions were taken to streamline our operations and all occurred in our Papermaking Systems segment.

*Interest Expense*

Interest expense increased \$0.4 million to \$1.3 million in 2016 from \$0.9 million in 2015 primarily due to borrowings and assumed capital lease obligations associated with the PAAL acquisition.

*Provision for Income Taxes*

Our provision for income taxes was \$12.1 million in 2016 and \$14.8 million in 2015, and represented 27% and 30% of pre-tax income, respectively. The effective tax rate of 27% in 2016 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings and the adoption of ASU No 2016-09 that resulted in a favorable adjustment for the net excess income tax benefits from stock-based compensation arrangements, offset in part by tax expense associated with an increase in nondeductible expenses. The effective tax rate of 30% in 2015 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings, offset in part by tax expense associated with an increase in nondeductible expenses and state income taxes.

*Income from Continuing Operations*

Income from continuing operations decreased \$2.1 million, or 6%, to \$32.5 million in 2016 from \$34.6 million in 2015, including a decrease in operating income of \$4.5 million, offset in part by a decrease in provision for income taxes of \$2.7 million (see *Revenues, Gross Profit Margin, Selling, General and Administrative Expenses, Research and Development Expenses, Restructuring Costs and Other Income*, and *Provision for Income Taxes* discussed above).

**Liquidity and Capital Resources**

Consolidated working capital was \$133.8 million at year-end 2017 and \$118.4 million at year-end 2016. Included in working capital were cash and cash equivalents of \$75.4 million at year-end 2017 and \$71.5 million at year-end 2016. At year-end 2017, \$71.3 million of cash and cash equivalents was held by our foreign subsidiaries.

*Cash Flows*

*2017*

Our operating activities provided cash of \$65.2 million in 2017 primarily due to cash generated by our operating subsidiaries from product sales. This is largely represented within operating cash flows in net income, excluding non-cash charges for depreciation and amortization and stock-based compensation. Aside from cash generated from items which impacted net income, operating cash flows were also impacted by changes in working capital due to the timing of cash receipts and payments. We had an increase in accounts receivable of \$10.9 million in 2017 due to increased project activity, which will be collected in subsequent periods. We also had an increase in other current liabilities of \$16.1 million largely related to cash received from customer deposits and billings in excess of costs and fees.

Our investing activities used cash of \$221.9 million in 2017 primarily related to \$204.7 million for acquisitions, net of cash acquired, and \$17.3 million for purchases of property, plant, and equipment.

Our financing activities provided cash of \$151.4 million in 2017. We borrowed \$232.0 million under our revolving credit facility (see below), including \$70.7 million of Canadian dollar-denominated and \$61.8 million of euro-denominated borrowings. These borrowings were partially offset by \$67.7 million of principal payments on our outstanding debt obligations, \$9.0 million of cash dividends paid to stockholders, and \$2.2 million of tax withholding payments related to stock-based compensation.

*2016*

Our operating activities provided cash of \$51.0 million in 2016 primarily due to cash generated by our operating subsidiaries from product sales. Working capital used cash of \$0.6 million in 2016, including \$5.2 million from a decrease in accounts payable primarily due to reduced project activity in our Stock-Preparation product line and \$4.1 million from a decrease in other current liabilities primarily related to decreases in accrued income taxes and billings in excess of costs and fees. These uses of cash were offset in large part by decreases of \$4.4 million in unbilled costs and fees and accounts receivable and \$3.6 million in inventory primarily related to reduced project activity in our Stock-Preparation product line in 2016.

Our investing activities used cash of \$62.0 million in 2016 that primarily related to the acquisition of PAAL for approximately \$56.6 million in cash, net of cash acquired, and \$5.8 million for purchases of property, plant, and equipment.

Our financing activities provided cash of \$22.7 million in 2016. We borrowed \$51.0 million under our revolving credit facility, of which \$29.9 million was used to fund the PAAL acquisition. In addition, we received \$2.4 million from employee stock option exercises. These sources of cash were offset in part by \$18.4 million of principal payments on our outstanding debt obligations, of which \$5.3 million related to the repayment of our commercial real estate loan, \$8.0 million of cash dividends paid to stockholders, and \$2.6 million of tax withholding payments related to stock-based compensation. In addition, we paid \$1.1 million of contingent consideration related to a prior period acquisition.

*2015*

Our operating activities provided cash of \$40.4 million in 2015 primarily due to cash generated by our operating subsidiaries from product sales. We used cash of \$12.2 million for accounts receivable and unbilled contract costs and fees and \$6.5 million for inventory. The cash used for accounts receivable and unbilled contract costs and fees related to increased project activity, especially in our Stock-Preparation product line. The cash used for inventory was primarily due to increases at our Wood Processing Systems segment and in work-in-process at our Stock-Preparation product line in China related to projects shipped in 2016. These uses of cash were offset in part by \$11.7 million of cash provided by other current liabilities primarily due to an increase in accrued income taxes due to the timing of payments and an increase in customer deposits related to capital equipment projects.

Our investing activities used cash of \$5.4 million in 2015 primarily for purchases of property, plant, and equipment.

Our financing activities used cash of \$13.6 million in 2015. We used cash of \$18.6 million for principal payments on our outstanding debt obligations, \$9.9 million for the repurchase of our common stock on the open market, and \$7.2 million for cash dividends paid to stockholders. These uses were offset by \$24.0 million in borrowings under our revolving credit facility.

#### *Additional Liquidity and Capital Resources*

On May 17, 2017, our board of directors approved the repurchase of up to \$20 million of our equity securities during the period from May 17, 2017 to May 17, 2018. We did not purchase any shares of our common stock under this authorization or under the previous authorization, which expired in the second quarter of 2017.

We paid quarterly cash dividends totaling \$9.0 million in 2017. In addition, we paid \$2.3 million on February 8, 2018 for a quarterly cash dividend that was declared on November 15, 2017. Future declarations of dividends are subject to our board of directors' approval and may be adjusted as business needs or market conditions change. The declaration of cash dividends is subject to our compliance with the consolidated leverage ratio contained in our revolving credit facility.

As of year-end 2017, we had cash and cash equivalents of \$75.4 million, of which \$71.3 million was held by our foreign subsidiaries. As of year-end 2017, we had approximately \$245.6 million of total unremitted foreign earnings and it is our intent to reinvest indefinitely these earnings, except for the earnings in certain foreign subsidiaries, to support the current and future capital needs of their operations, including debt repayments. For 2017, we recorded a one-time mandatory transition tax of \$10.3 million on accumulated unremitted foreign earnings under the 2017 Tax Act. Additionally, we recorded foreign income and withholding taxes of \$2.7 million on the unremitted foreign earnings that we plan to repatriate in 2018. The foreign withholding taxes, which would be required if we were to remit the remaining undistributed foreign earnings to the United States, would be approximately \$3.7 million.

We plan to make expenditures of approximately \$18 to \$19 million during 2018 for property, plant, and equipment, including approximately \$7 million for our Ohio manufacturing facility, which will be completed in the first half of 2018.

In the future, our liquidity position will be primarily affected by the level of cash flows from operations, cash paid to satisfy debt repayments, capital projects, dividends, stock repurchases, or acquisitions. We believe that our existing resources, together with the cash available from our credit facilities and the cash we expect to generate from operations, will be sufficient to meet the capital requirements of our current operations for the foreseeable future.

#### *Revolving Credit Facility*

On March 1, 2017, we entered into an Amended and Restated Credit Agreement (as amended, the 2017 Credit Agreement) that became effective on March 2, 2017, which is a five-year unsecured multi-currency revolving credit facility in the aggregate principal amount of up to \$200 million. On May 24, 2017, we entered into a first amendment and limited consent, which increased the revolving loan commitment to \$300 million. The 2017 Credit Agreement also included an uncommitted unsecured incremental borrowing facility of up to an additional \$100 million. The principal on any borrowings made under the 2017 Credit Agreement is due on March 1, 2022. Borrowing may be denominated in U.S. dollars or certain foreign currencies, as defined in the 2017 Credit Agreement. Interest on any loans outstanding under the 2017 Credit Agreement accrues and generally is payable quarterly in arrears at one of the following rates selected by us: (i) the Base Rate, calculated as the highest of (a) the federal funds rate plus 0.50%, (b) the prime rate as published by Citizens Bank, and (c) the thirty-day London Inter-Bank Offered Rate (LIBOR) rate, as defined, plus 0.50%; or (ii) the LIBOR rate (with a zero percent floor), as defined, plus an applicable margin of 1% to 2%. The applicable margin is determined based upon the ratio of our total debt, net of certain cash, as defined, to earnings before interest, taxes, depreciation, and amortization (EBITDA), as defined in the 2017 Credit Agreement. For this purpose, total debt net of certain cash is defined as total debt less the sum of (i) unrestricted U.S. cash, and (ii) 65% of unrestricted cash outside of the United States, but no more than an aggregate amount of \$30 million.

Our obligations under the 2017 Credit Agreement may be accelerated upon the occurrence of an event of default under the 2017 Credit Agreement, which includes customary events of default including, without limitation, payment defaults, defaults in the performance of affirmative and negative covenants, the inaccuracy of representations or warranties, bankruptcy- and insolvency-related defaults, defaults relating to such matters as the Employment Retirement Income Security Act (ERISA), unsatisfied judgments, the failure to pay certain indebtedness, and a change of control default. In addition, the 2017 Credit Agreement contains negative covenants applicable to us, including financial covenants requiring us to comply with a maximum consolidated leverage ratio of 3.5 to 1, a minimum consolidated interest coverage ratio of 3 to 1, and restrictions on liens, indebtedness, fundamental changes, dispositions of property, making certain restricted payments (including dividends and stock repurchases), investments, transactions with affiliates, sale and leaseback transactions, swap agreements, changing our fiscal year, arrangements affecting subsidiary distributions, entering into new lines of business, and certain actions related to a discontinued operation. At year-end 2017, we were in compliance with these covenants.

Loans under the 2017 Credit Agreement are guaranteed by certain of our domestic subsidiaries pursuant to an Amended and Restated Guarantee Agreement, dated as of March 1, 2017. In addition, one of our foreign subsidiaries entered into a Guarantee Agreement limited to certain obligations of two foreign subsidiary borrowers pursuant to a Guarantee Agreement, dated as of March 1, 2017.



## Kadant Inc.

In 2017, we borrowed an aggregate \$232.0 million under the 2017 Credit Agreement. At year-end 2017, the outstanding balance under the 2017 Credit Agreement was \$237.0 million, including \$58.7 million of euro-denominated and \$58.3 million of Canadian dollar-denominated borrowings, and we had \$64.0 million of borrowing capacity available under the 2017 Credit Agreement, as calculated by translating our foreign-denominated borrowings using borrowing date foreign exchange rates.

The weighted average interest rate for the revolving credit facility was 2.69% at year-end 2017.

### *Sale-Leaseback Financing Arrangement*

We have a sale-leaseback financing arrangement for PAAL's facility in Germany. Under this arrangement, the quarterly lease payment includes principal, interest, and a payment to the landlord toward a loan receivable. The lease arrangement includes a net fixed price purchase option of \$1.6 million at the end of the lease term in 2022. At year-end 2017, \$4.5 million was outstanding under this capital lease obligation with an interest rate of 1.79% on the outstanding balance.

### *Interest Rate Swap Agreement*

On January 16, 2015, we entered into a swap agreement (2015 Swap Agreement) to hedge our exposure to movements in the three-month LIBOR rate on future outstanding debt. The 2015 Swap Agreement expires on March 27, 2020, and has a \$10 million notional value. Under the 2015 Swap Agreement, on a quarterly basis we receive a three-month LIBOR rate and pay a fixed rate of interest of 1.50% plus an applicable margin.

We believe that any credit risk associated with the swap agreement is remote based on our financial position and the creditworthiness of the financial institution that issued the 2015 Swap Agreement. At year-end 2017, the 2015 Swap Agreement had an unrealized gain of \$0.1 million, which represents the estimated amount that we would receive from the counterparty in the event of an early termination.

The counterparty to the 2015 Swap Agreement could demand an early termination of the 2015 Swap Agreement if we were to be in default under the 2017 Credit Agreement, or any agreement that amends or replaces the 2017 Credit Agreement in which the counterparty is a member, and if we were to be unable to cure the default. An event of default under the 2017 Credit Agreement includes customary events of default and failure to comply with financial covenants, including a maximum consolidated leverage ratio of 3.5 to 1 and a minimum consolidated interest coverage ratio of 3 to 1.

### *Contractual Obligations and Other Commercial Commitments*

The following table summarizes our known contractual obligations and commercial commitments to make future payments or other consideration pursuant to certain contracts at year-end 2017, as well as an estimate of the timing in which these obligations are expected to be satisfied. Detailed information concerning these obligations and commitments can be found in Notes 3, 5, 6 and 7 to our consolidated financial statements.

(In millions)	Payments Due by Period or Expiration of Commitment				
	Less than 1 Year	1-3 Years	3-5 Years	After 5 Years	Total
<b>Contractual Obligations and Other Commitments:</b>					
<b>(a)(b)</b>					
Letters of credit and bank guarantees .....	\$ 16.7	\$ 4.3	\$ —	\$ —	\$ 21.0
Retirement obligations on balance sheet.....	0.6	3.6	1.0	6.2	11.4
Revolving credit facility .....	—	—	237.0	—	237.0
Capital lease obligations (c).....	0.5	1.1	1.4	—	3.0
Operating lease obligations.....	3.5	3.8	2.3	2.0	11.6
Purchase obligation.....	0.4	0.4	—	—	0.8
U.S. transition tax, net of available foreign tax credits.....	0.4	0.4	0.7	3.1	4.6
Interest (d).....	6.6	12.9	7.5	—	27.0
<b>Total (e).....</b>	<b>\$ 28.7</b>	<b>\$ 26.5</b>	<b>\$ 249.9</b>	<b>\$ 11.3</b>	<b>\$ 316.4</b>

- (a) We have purchase obligations related to the acquisition of raw material made in the ordinary course of business that may be terminated with minimal notice and are excluded from this table.
- (b) In the ordinary course of business, certain contracts contain limited performance guarantees, some of which do not require letters of credit, relating to our equipment and systems. We generally limit our liability under these guarantees to amounts typically capped at 10% or less of the value of the contract. We believe that we have adequate reserves for any potential liability in connection with such guarantees. These guarantees are not included in this table.

- (c) This table excludes a liability of \$1.6 million related to a net fixed price purchase option exercisable in 2022.
- (d) Amounts assume interest rates on variable rate debt remain unchanged from rates at year-end 2017.
- (e) This table excludes a liability for unrecognized tax benefits and an accrual for the related interest and penalties totaling \$9.4 million. Due to the uncertain nature of these income tax matters, we are unable to make a reasonably reliable estimate as to if and when cash settlements with the appropriate taxing authorities will occur.

Provisions in financial guarantees or commitments, debt or lease agreements, or other arrangements could trigger a requirement for an early payment, additional collateral support, amended terms, or acceleration of maturity.

We do not have special-purpose entities nor do we use off-balance-sheet financing arrangements.

#### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risk from changes in interest rates and foreign currency exchange rates, which could affect our future results of operations and financial condition. We manage our exposure to these risks through our regular operating and financing activities. In 2015, we entered into the 2015 Swap Agreement to hedge a portion of our exposure to variable rate long-term debt, which is still outstanding at December 30, 2017. Additionally, we use short-term forward contracts to manage certain exposures to foreign currencies. We enter into forward currency-exchange contracts to hedge firm purchase and sale commitments denominated in currencies other than our subsidiaries' local currencies. We do not engage in extensive foreign currency hedging activities; however, the purpose of our foreign currency hedging activities is to protect our local currency cash flows related to these commitments from fluctuations in foreign exchange rates. Our forward currency-exchange contracts hedge transactions primarily denominated in U.S. dollars, Canadian dollars, euros, and Chinese renminbi. Gains and losses arising from forward contracts are recognized as offsets to gains and losses resulting from the transactions being hedged. We do not hold or engage in transactions involving derivative instruments for purposes other than risk management.

#### **Interest Rates**

Our cash and cash equivalents are sensitive to changes in interest rates. Interest rate changes would result in a change in interest income due to the difference between the current interest rates on cash and cash equivalents and the variable rates to which these financial instruments may adjust in the future. A 10% decrease in year-end interest rates would have resulted in an immaterial impact on net income in both 2017 and 2016.

Our borrowings under the 2017 Credit Agreement of \$237.0 million at December 31, 2017 bear a variable rate of interest, which adjusts quarterly. Assuming year-end borrowing levels, a 10% increase in interest rates on our variable-rate debt and the 2015 Swap Agreement would have increased our annual pre-tax interest expense by approximately \$0.6 million. A portion of our outstanding variable-rate debt at year-end 2017 and year-end 2016 was hedged with the 2015 Swap Agreement. The fair value of the 2015 Swap Agreement is sensitive to changes in the three-month LIBOR forward curve. A 10% decrease in the three-month LIBOR forward curve would not have had a material impact on the unrealized gains at year-end 2017 and year-end 2016.

#### **Currency Exchange Rates**

We generally view our investment in foreign subsidiaries in a functional currency other than our reporting currency as long-term. Our investment in foreign subsidiaries is sensitive to fluctuations in foreign currency exchange rates. The functional currencies of our foreign subsidiaries are principally denominated in euros, British pounds sterling, Mexican pesos, Canadian dollars, Chinese renminbi, Brazilian reals, and Swedish krona. The effect of changes in foreign exchange rates on our net investment in foreign subsidiaries is reflected in the "accumulated other comprehensive items" component of stockholders' equity. A 10% decrease in functional currencies relative to the U.S. dollar, would have resulted in a reduction in stockholders' equity of \$29.4 million at year-end 2017 and \$23.2 million at year-end 2016.

At year-end 2017, we had \$58.7 million of euro-denominated borrowings and \$58.3 million of Canadian dollar-denominated borrowings outstanding. The translation of our foreign-denominated debt impacts our borrowing capacity available under our 2017 Credit Agreement, which is calculated in U.S. dollars. A 10% movement in the euro and Canadian dollar rates against the U.S. dollar would have decreased our borrowing capacity by approximately \$11.7 million at year-end 2017.

The fair value of forward currency-exchange contracts is sensitive to fluctuations in foreign currency exchange rates. The fair value of forward currency-exchange contracts is the estimated amount that we would pay or receive upon termination of the contracts, taking into account the change in foreign currency exchange rates. A 10% adverse change in year-end 2017 and year-end 2016 foreign currency exchange rates related to our contracts would have resulted in an increase in unrealized losses on forward currency-exchange contracts of \$0.3 million in 2017 and \$1.4 million in 2016. Since we use forward currency-exchange contracts as hedges of firm purchase and sale commitments, the unrealized gain or loss on forward currency-exchange contracts resulting from changes in foreign currency exchange rates would be offset primarily by corresponding changes in the fair value of the hedged items.

**Item 8. Financial Statements and Supplementary Data**

This data is submitted as a separate section to this Report and incorporated herein by reference. See Item 15, "Exhibits and Financial Statement Schedules."

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

Not applicable.

**Item 9A. Controls and Procedures**

*Evaluation of Disclosure Controls and Procedures*

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures at year-end 2017. The term "disclosure controls and procedures," as defined in Securities Exchange Act Rules 13a-15(e) and 15d-15(e), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based upon the evaluation of our disclosure controls and procedures at year-end 2017, our Chief Executive Officer and Chief Financial Officer concluded that at year-end 2017, our disclosure controls and procedures were effective at the reasonable assurance level.

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Securities Exchange Act Rules 13a-15(f) and 15d-15(f). Our management assessed the effectiveness of our internal control over financial reporting at year-end 2017. In making this assessment, our management used the criteria set forth in "Internal Control—Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment, management believes that at year-end 2017 our internal control over financial reporting was effective based on the criteria issued by COSO.

On August 14, 2017, we acquired certain assets of Unaflex. Our audited consolidated financial statements include the results of Unaflex since the acquisition date, including total assets of \$31.2 million and total revenues of \$7.3 million as of and for the fiscal year ended December 30, 2017, but management's assessment does not include an assessment of the internal control over financial reporting of the Unaflex business.

On July 5, 2017, we acquired the forest products business of NII FPG. Our audited consolidated financial statements include the results of NII FPG since the acquisition date, including total assets of \$209.0 million and total revenues of \$48.4 million as of and for the fiscal year ended December 30, 2017, but management's assessment does not include an assessment of the internal control over financial reporting of the NII FPG business.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our independent registered public accountants, KPMG LLP, have issued an audit report on our internal control over financial reporting, which is included herein on page F-2 and incorporated into this Item 9A by reference.

*Changes in Internal Control over Financial Reporting*

There have not been any changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) during the fiscal quarter ended December 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B. Other Information**

Not applicable.

## PART III

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

This information will be included under the heading "Election of Directors" in our 2018 proxy statement for our 2018 Annual Meeting of Shareholders and is incorporated in this Report by reference, except for the information concerning executive officers, which is included under the heading "Executive Officers of the Registrant" in Item 1 of Part I of this Report.

*Section 16(a) Beneficial Ownership Reporting Compliance*

The information required under Item 405 of Regulation S-K will be included under the heading "Stock Ownership—Section 16(a) Beneficial Ownership Reporting Compliance" in our 2018 proxy statement and is incorporated in this Report by reference.

*Corporate Governance*

The information required under Items 406 and 407 of Regulation S-K will be included under the heading "Corporate Governance" in our 2018 proxy statement and is incorporated in this Report by reference.

**Item 11. Executive Compensation**

This information will be included under the headings "Executive Compensation", "Corporate Governance - Compensation Committee Interlocks and Insider Participation", and "Compensation Discussion and Analysis" in our 2018 proxy statement and is incorporated in this Report by reference.

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

Except for the information concerning equity compensation plans, this information will be included under the heading "Stock Ownership" in our 2018 proxy statement and is incorporated in this Report by reference.

The following table provides information about the securities authorized for issuance under our equity compensation plans at year-end 2017:

**Equity Compensation Plan Information**

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants, and Rights		Weighted-Average Exercise Price of Outstanding Options, Warrants, and Rights		Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in the First Column)	
Equity compensation plans approved by security holders .....	506,548	(1)	\$ 20.72	(2)	538,406	(3)
Equity compensation plans not approved by security holders .....	—		\$ —		—	
Total .....	506,548	(1)	\$ 20.72	(2)	538,406	(3)

- (1) Consists of 307,395 shares of our common stock to be issued upon exercise of outstanding options under our Amended and Restated 2006 Equity Compensation Plan, as amended (the 2006 Plan), and 199,153 shares of our common stock issuable upon the vesting of restricted stock units and performance-based restricted stock units under the 2006 Plan.
- (2) Consists of the weighted average exercise price of the 307,395 stock options outstanding on December 30, 2017. The 199,153 shares of restricted stock units and performance-based restricted stock units outstanding on December 30, 2017 had a weighted average grant date fair value of \$49.32.
- (3) Includes an aggregate of 51,725 shares of common stock issuable under our employees' stock purchase plan in connection with current and future offering periods under the plan.

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

This information will be included under the heading "Corporate Governance" in our 2018 proxy statement and is incorporated in this Report by reference.

**Item 14. Principal Accountant Fees and Services**

This information will be included under the heading "Independent Registered Public Accounting Firm" in our 2018 proxy statement and is incorporated in this Report by reference.

**PART IV**

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

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

(1) Consolidated Financial Statements (see Index on Page F-1 of this Report):

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheet

Consolidated Statement of Income

Consolidated Statement of Comprehensive Income

Consolidated Statement of Cash Flows

Consolidated Statement of Stockholders' Equity

Notes to Consolidated Financial Statements

(2) All schedules are omitted because they are not applicable or not required, or because the required information is shown either in the consolidated financial statements or in the notes thereto.

(3) Exhibits filed herewith or incorporated in this Report by reference are set forth in the Exhibit Index beginning on page 39. This list of exhibits identifies each management contract or compensatory plan or arrangement required to be filed as an exhibit to this Report.

(b) Exhibits

**Exhibit Index**

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
2.1	Stock and Asset Purchase Agreement by and among the Registrant, Kadant Northern U.S. LLC, Kadant Canada Corp., Kadant Northern UK Co. Ltd., Kadant Johnson Europe B.V., NII FPG Company, Nicholson Intellectual Property, Inc., Cascade Natural Resources, Inc. and Northern Industrial, Inc. dated as of May 24, 2017 (filed as Exhibit 2.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 001-11406] and incorporated in this document by reference). (1)
3.1	Restated Certificate of Incorporation of the Registrant (filed as Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 [File No. 001-11406] and incorporated in this document by reference).
3.2	Amended and Restated Bylaws of the Registrant effective November 20, 2014 (filed as Exhibit 3.1 to the Registrant's Form 8-K [File No. 001-11406] filed with the Commission on November 25, 2014 and incorporated in this document by reference).
10.1*	Form of Indemnification Agreement between the Registrant and its directors and officers (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 [File No. 001-11406] and incorporated in this document by reference).
10.2*	Form of Amended and Restated Executive Retention Agreement (change in control agreement) between the Company and its named executive officers, as amended and restated on December 9, 2008 (filed as Exhibit 10.3 to the Registrant's Annual Report on Form 10-K for the year ended January 3, 2009 [File No. 001-11406] and incorporated in this document by reference).
10.3*	Form of Executive Retention Agreement (change in control agreement) between the Company and its executive officers for new agreements entered into from and after November 16, 2016 (filed as Exhibit 10.3 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2016 [File No. 001-11406] and incorporated in this document by reference).
10.4*	Amended and Restated Equity Incentive Plan of the Registrant (filed as Exhibit 10.5 to the Registrant's Annual Report on Form 10-K for the year ended January 3, 2009 [File No. 001-11406] and incorporated in this document by reference).
10.5*	Amended and Restated 2006 Equity Incentive Plan of the Registrant effective as of May 17, 2017 (filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 011-11406] and incorporated in this document by reference).
10.6*	Cash Incentive Plan of the Registrant (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 001-11406] and incorporated in this document by reference).
10.7*	Restoration Plan of the Registrant (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 2, 2011 [File No. 001-11406] and incorporated in this document by reference).
10.8*	Amendments to the Restoration Plan of the Registrant effective as of May 20, 2014 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 28, 2014 [File No. 001-11406] and incorporated in this document by reference).
10.9*	Summary of non-employee director compensation of the Registrant.
10.10*	Executive Transition Agreement between the Registrant and Sandra L. Lambert dated September 20, 2017 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 [File No. 011-11406] and incorporated in this document by reference).

## Kadant Inc.

### Exhibit Index

Exhibit Number	Description of Exhibit
10.11*	Notice dated September 20, 2017 of the Termination of the Amended and Restated Executive Retention Agreement dated December 8, 2008 between the Registrant and Sandra L. Lambert (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 [File No. 011-11406] and incorporated in this document by reference).
10.12*	Notice dated September 20, 2017 of the Amendment to Certain Restricted Stock Unit Agreements granted by the Registrant to Sandra L. Lambert (filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 [File No. 011-11406] and incorporated in this document by reference).
10.13*	Form of Performance-Based Restricted Stock Unit Award Agreement between the Company and its executive officers used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 29, 2014 [File No. 001-11406] and incorporated in this document by reference).
10.14*	Form of Time-Based Restricted Stock Unit Award Agreement between the Company and its executive officers used for restricted stock unit awards on or after March 5, 2014 (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 29, 2014 [File No. 001-11406] and incorporated in this document by reference).
10.15*	Form of Stock Option Agreement between the Company and its executive officers used for stock option awards (filed as Exhibit 10.21 to the Registrant's Annual Report on Form 10-K for the year ended January 2, 2010 [File No. 001-11406] and incorporated in this document by reference).
10.16*	Notice of Amendment to Stock Option Agreements between the Company and its executive officers used for stock option awards (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 28, 2013 [File No. 001-11406] and incorporated in this document by reference).
10.17	Amended and Restated Credit Agreement dated as of March 1, 2017, among Kadant Inc., the Foreign Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions or entities from time to time parties thereto, Citizens Bank, N.A., as Administrative Agent and Multi-currency Administrative Agent (filed as Exhibit 99.1 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on March 7, 2017 and incorporated in this document by reference).
10.18	First Amendment and Limited Consent to the Amended and Restated Credit Agreement dated as of May 24, 2017, among Kadant Inc., the Foreign Subsidiary Borrowers from time to time parties thereto, the several banks and other financial institutions or entities from time to time parties thereto, RBS Citizens, N.A., as Administrative Agent and Multi-currency Administrative Agent (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 1, 2017 [File No. 011-11406] and incorporated in this document by reference).

Exhibit Index

Exhibit Number	Description of Exhibit
10.19	Amended and Restated Guarantee Agreement dated as of March 1, 2017, among the Registrant, as Borrower, and each of the Subsidiary Guarantors, in favor of Citizens Bank, N.A., as Administrative Agent and as Multicurrency Agent for the bank and other financial institutions or entities from time to time parties to the Amended and Restated Credit Facility (filed as Exhibit 99.2 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on March 7, 2017 and incorporated in this document by reference).
10.20	Guarantee Agreement dated as of March 1, 2017, by Kadant Cayman Ltd. in favor of Citizens Bank, N.A., as Administrative Agent and as Multicurrency Agent for the banks and other financial institutions or entities from time to time parties to the Amended and Restated Credit Facility (filed as Exhibit 99.3 to the Registrant's Current Report on Form 8-K [File No. 001-11406] filed with the Commission on March 7, 2017 and incorporated in this document by reference).
10.21	Swap Confirmation dated January 16, 2015 between the Registrant and Citizens Bank, National Association (filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 4, 2015 [File No. 001-11406] and incorporated in this document by reference).
10.22	International Swap Dealers Association, Inc. Master Agreement dated May 13, 2005 between the Registrant and Citizens Bank of Massachusetts and Swap Confirmation dated May 18, 2005 (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended July 2, 2005 [File No. 001-11406] and incorporated in this document by reference).
21	Subsidiaries of the Registrant.
23	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
24	Power of Attorney (included on the signatures page to the Annual Report on Form 10-K).
31.1	Certification of the Principal Executive Officer of the Registrant Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of the Principal Financial Officer of the Registrant Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32	Certification of the Chief Executive Officer and the Chief Financial Officer of the Registrant pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.**
101.SCH	XBRL Taxonomy Extension Schema Document.**
101.CAL	XBRL Taxonomy Calculation Linkbase Document.**
101.LAB	XBRL Taxonomy Label Linkbase Document.**



Exhibit Index

Exhibit Number	Description of Exhibit
101.PRE	XBRL Taxonomy Presentation Linkbase Document.**
101.DEF	XBRL Taxonomy Definition Linkbase Document.**

\* Management contract or compensatory plan or arrangement.

\*\* Submitted electronically herewith.

- (1) The schedules to this document have been omitted from this filing pursuant to Item 601(b)(2) of Regulation S-K. The Company will furnish copies of any of the schedules to the U.S. Securities and Exchange Commission upon request.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheet as of December 30, 2017 and December 31, 2016, (ii) Consolidated Statement of Income for the fiscal years ended December 30, 2017, December 31, 2016 and January 2, 2016, (iii) Consolidated Statement of Comprehensive Income for the fiscal years ended December 30, 2017, December 31, 2016 and January 2, 2016, (iv) Consolidated Statement of Cash Flows for the fiscal years ended December 30, 2017, December 31, 2016 and January 2, 2016, (v) Consolidated Statement of Stockholders' Equity for the fiscal years ended December 30, 2017, December 31, 2016 and January 2, 2016, and (vi) Notes to Consolidated Financial Statements.

**Item 16. Form 10-K Summary**

Not applicable.



**Kadant Inc.**  
**Annual Report on Form 10-K**  
**Index to Consolidated Financial Statements and Schedule**

The following Consolidated Financial Statements of the Registrant and its subsidiaries are required to be included in Item 8:

	<b><u>Page</u></b>
Report of Independent Registered Public Accounting Firm .....	F-2
Consolidated Balance Sheet as of December 30, 2017 and December 31, 2016.....	F-4
Consolidated Statement of Income for the fiscal years ended December 30, 2017, December 31, 2016, and January 2, 2016.....	F-5
Consolidated Statement of Comprehensive Income for the fiscal years ended December 30, 2017, December 31, 2016, and January 2, 2016 .....	F-6
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Consolidated Statement of Stockholders' Equity for the fiscal years ended December 30, 2017, December 31, 2016, and January 2, 2016 .....	F-8
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## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors  
Kadant Inc.:

### *Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting*

We have audited the accompanying consolidated balance sheets of Kadant Inc. and subsidiaries (the Company) as of December 30, 2017 and December 31, 2016, the related consolidated statements of income, comprehensive income, cash flows, and stockholders' equity for each of the fiscal years in the three-year period ended December 30, 2017, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 30, 2017, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 30, 2017 and December 31, 2016, and the results of its operations and its cash flows for each of the fiscal years in the three-year period ended December 30, 2017, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 30, 2017, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

The Company acquired the forest products business of NII FPG Company (NII FPG) on July 5, 2017 and Unaflex, LLC on August 14, 2017, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 30, 2017, NII FPG's and Unaflex, LLC's internal control over financial reporting associated with total assets of \$209.0 million and total revenues of \$48.4 million for NII FPG and total assets of \$31.2 million and total revenues of \$7.3 million for Unaflex, LLC included in the consolidated financial statements of the Company as of and for the fiscal year ended December 30, 2017. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of NII FPG and Unaflex, LLC.

### *Basis for Opinions*

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

## **Report of Independent Registered Public Accounting Firm (continued)**

### *Definition and Limitations of Internal Control Over Financial Reporting*

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

We have served as the Company's auditor since 2012.

Boston, Massachusetts  
February 27, 2018

## Consolidated Balance Sheet

(In thousands, except share and per share amounts)	December 30, 2017	December 31, 2016
<b>Assets</b>		
Current Assets:		
Cash and cash equivalents .....	\$ 75,425	\$ 71,487
Restricted cash .....	1,421	2,082
Accounts receivable, less allowances of \$2,879 and \$2,395 .....	89,624	65,963
Inventories .....	84,933	54,951
Unbilled contract costs and fees .....	2,374	3,068
Other current assets .....	12,246	9,799
Total Current Assets .....	<u>266,023</u>	<u>207,350</u>
Property, Plant, and Equipment, at Cost, Net .....	79,723	47,704
Other Assets (Note 5) .....	14,311	11,452
Intangible Assets, Net .....	133,036	52,730
Goodwill .....	268,001	151,455
Total Assets .....	<u>\$ 761,094</u>	<u>\$ 470,691</u>
<b>Liabilities and Stockholders' Equity</b>		
Current Liabilities:		
Current maturities of long-term obligations (Note 6) .....	\$ 696	\$ 643
Accounts payable .....	35,461	23,929
Accrued payroll and employee benefits .....	29,616	20,508
Customer deposits .....	30,103	21,168
Billings in excess of costs and fees .....	7,316	1,271
Other current liabilities .....	29,038	21,394
Total Current Liabilities .....	<u>132,230</u>	<u>88,913</u>
Long-Term Obligations (Note 6) .....	241,384	65,768
Long-Term Deferred Income Taxes (Note 5) .....	29,085	14,631
Other Long-Term Liabilities (Note 3) .....	25,891	17,100
Commitments and Contingencies (Note 7)		
Stockholders' Equity (Notes 3 and 4):		
Preferred stock, \$.01 par value, 5,000,000 shares authorized; none issued .....	—	—
Common stock, \$.01 par value, 150,000,000 shares authorized; 14,624,159 shares issued .....	146	146
Capital in excess of par value .....	103,221	101,405
Retained earnings .....	342,893	321,050
Treasury stock at cost, 3,613,838 and 3,686,532 shares .....	(88,554)	(90,335)
Accumulated other comprehensive items (Note 13) .....	(26,715)	(49,637)
Total Kadant Stockholders' Equity .....	<u>330,991</u>	<u>282,629</u>
Noncontrolling interest .....	1,513	1,650
Total Stockholders' Equity .....	<u>332,504</u>	<u>284,279</u>
Total Liabilities and Stockholders' Equity .....	<u>\$ 761,094</u>	<u>\$ 470,691</u>

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Income

(In thousands, except per share amounts)	December 30, 2017	December 31, 2016	January 2, 2016
Revenues (Note 11) .....	\$ 515,033	\$ 414,126	\$ 390,107
Costs and Operating Expenses:			
Cost of revenues .....	283,999	225,737	209,982
Selling, general, and administrative expenses .....	160,515	135,753	122,814
Research and development expenses .....	9,563	7,380	6,677
Restructuring costs and other income (Note 8) .....	203	(317)	515
	<u>454,280</u>	<u>368,553</u>	<u>339,988</u>
Operating Income .....	60,753	45,573	50,119
Interest income .....	447	269	200
Interest expense .....	(3,547)	(1,293)	(948)
Income from Continuing Operations Before Provision for Income Taxes .....	57,653	44,549	49,371
Provision for income taxes (Note 5) .....	26,070	12,083	14,762
Income from Continuing Operations .....	31,583	32,466	34,609
Income from discontinued operation (net of income tax provision of \$2 in 2016 and \$43 in 2015) .....	—	3	74
Net Income .....	31,583	32,469	34,683
Net Income Attributable to Noncontrolling Interest .....	(491)	(392)	(294)
<b>Net Income Attributable to Kadant</b> .....	<u>\$ 31,092</u>	<u>\$ 32,077</u>	<u>\$ 34,389</u>
<b>Amounts Attributable to Kadant:</b>			
Income from Continuing Operations .....	\$ 31,092	\$ 32,074	\$ 34,315
Income from Discontinued Operation .....	—	3	74
Net Income Attributable to Kadant .....	<u>\$ 31,092</u>	<u>\$ 32,077</u>	<u>\$ 34,389</u>
<b>Earnings per Share from Continuing Operations Attributable to Kadant (Note 12)</b>			
Basic .....	\$ 2.83	\$ 2.95	\$ 3.16
Diluted .....	\$ 2.75	\$ 2.88	\$ 3.09
<b>Earnings per Share Attributable to Kadant (Note 12)</b>			
Basic .....	\$ 2.83	\$ 2.95	\$ 3.16
Diluted .....	\$ 2.75	\$ 2.88	\$ 3.10
<b>Weighted Average Shares (Note 12)</b>			
Basic .....	10,991	10,869	10,867
Diluted .....	11,312	11,149	11,094
<b>Cash Dividends Declared per Common Share</b> .....	\$ 0.84	\$ 0.76	\$ 0.68

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Comprehensive Income

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
<b>Comprehensive Income</b>			
Net Income.....	\$ 31,583	\$ 32,469	\$ 34,683
Other Comprehensive Items:			
Foreign currency translation adjustment.....	23,847	(13,240)	(20,687)
Pension and other post-retirement liability adjustments, net (net of tax (benefit) provision of (\$150), \$125, and \$107).....	(738)	256	172
Deferred gain on hedging instruments (net of tax provision (benefit) of \$39, \$(67), and \$84).....	67	241	563
Other Comprehensive Items.....	<u>23,176</u>	<u>(12,743)</u>	<u>(19,952)</u>
Comprehensive Income.....	54,759	19,726	14,731
Comprehensive Income Attributable to Noncontrolling Interest.....	(745)	(314)	(168)
Comprehensive Income Attributable to Kadant.....	<u>\$ 54,014</u>	<u>\$ 19,412</u>	<u>\$ 14,563</u>

The accompanying notes are an integral part of these consolidated financial statements.



## Consolidated Statement of Cash Flows

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
<b>Operating Activities</b>			
Net income attributable to Kadant .....	\$ 31,092	\$ 32,077	\$ 34,389
Net income attributable to noncontrolling interest .....	491	392	294
Income from discontinued operation .....	—	(3)	(74)
Income from continuing operations .....	31,583	32,466	34,609
Adjustments to reconcile income from continuing operations to net cash provided by operating activities:			
Depreciation and amortization .....	19,375	14,326	10,821
Stock-based compensation expense .....	5,803	5,069	5,741
Excess tax benefit from stock-based compensation awards .....	—	—	(881)
Provision for losses on accounts receivable .....	436	453	379
Loss (gain) on sale of property, plant, and equipment .....	42	(350)	4
Deferred income tax benefit .....	578	(613)	(1,706)
Other items, net .....	1,420	1,362	(287)
Contributions to U.S. pension plan .....	(1,080)	(1,080)	(1,080)
Changes in current assets and liabilities, net of effects of acquisitions:			
Accounts receivable .....	(10,907)	1,003	(10,640)
Unbilled contract costs and fees .....	1,310	3,407	(1,534)
Inventories .....	1,163	3,553	(6,486)
Other current assets .....	(130)	753	1,495
Accounts payable .....	(522)	(5,238)	(1,752)
Other current liabilities .....	16,093	(4,111)	11,727
Net cash provided by continuing operations .....	65,164	51,000	40,410
Net cash provided by (used in) discontinued operation .....	—	3	(38)
Net cash provided by operating activities .....	65,164	51,003	40,372
<b>Investing Activities</b>			
Acquisitions, net of cash acquired (Note 2) .....	(204,731)	(56,617)	—
Purchases of property, plant, and equipment .....	(17,281)	(5,804)	(5,479)
Proceeds from sale of property, plant, and equipment .....	130	428	30
Net cash used in continuing operations for investing activities .....	(221,882)	(61,993)	(5,449)
<b>Financing Activities</b>			
Proceeds from issuance of debt (Note 6) .....	232,019	51,046	24,000
Repayment of debt .....	(67,696)	(18,429)	(18,611)
Dividends paid .....	(9,011)	(8,038)	(7,179)
Tax withholding payments related to stock-based compensation .....	(2,206)	(2,572)	(2,499)
Payment of debt issuance costs (Note 6) .....	(1,257)	(27)	—
Change in restricted cash .....	880	(789)	(1,066)
Dividend paid to noncontrolling interest .....	(882)	—	—
Purchases of Company common stock .....	—	—	(9,906)
Proceeds from issuance of Company common stock .....	—	2,350	754
Payment of contingent consideration .....	—	(1,091)	—
Excess tax benefits from stock-based compensation awards .....	—	—	881
Other financing activities .....	(491)	216	—
Net cash provided by (used in) continuing operations for financing activities .....	151,356	22,666	(13,626)
Exchange Rate Effect on Cash and Cash Equivalents from Continuing Operations .....	9,300	(5,714)	(1,145)
Decrease in Cash from Discontinued Operation .....	—	(5)	—
Increase in Cash and Cash Equivalents from Continuing Operations .....	3,938	5,957	20,152
Cash and Cash Equivalents at Beginning of Year .....	71,487	65,530	45,378
Cash and Cash Equivalents at End of Year .....	\$ 75,425	\$ 71,487	\$ 65,530

See Note 1 for supplemental cash flow information.

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Stockholders' Equity

(In thousands, except share amounts)	Common Stock		Capital in Excess of Par Value	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Items	Noncontrolling Interest	Total Stockholders' Equity
	Shares	Amount			Shares	Amount			
<b>Balance at January 3, 2015</b> ...	14,624,159	\$ 146	\$ 98,769	\$270,249	3,760,019	\$(87,727)	\$ (17,146)	\$ 1,168	\$ 265,459
Net income .....	—	—	—	34,389	—	—	—	294	34,683
Dividends declared .....	—	—	—	(7,380)	—	—	—	—	(7,380)
Activity under stock plans ....	—	—	886	—	(139,000)	3,274	—	—	4,160
Tax benefits related to employees' and directors' stock plans .....	—	—	881	—	—	—	—	—	881
Purchases of Company common stock .....	—	—	—	—	229,760	(9,906)	—	—	(9,906)
Other comprehensive items ..	—	—	—	—	—	—	(19,826)	(126)	(19,952)
<b>Balance at January 2, 2016</b> ...	14,624,159	\$ 146	\$100,536	\$297,258	3,850,779	\$(94,359)	\$ (36,972)	\$ 1,336	\$ 267,945
Net income .....	—	—	—	32,077	—	—	—	392	32,469
Dividends declared .....	—	—	—	(8,285)	—	—	—	—	(8,285)
Activity under stock plans ....	—	—	869	—	(164,247)	4,024	—	—	4,893
Other comprehensive items ..	—	—	—	—	—	—	(12,665)	(78)	(12,743)
<b>Balance at December 31, 2016</b> .....	14,624,159	\$ 146	\$101,405	\$321,050	3,686,532	\$(90,335)	\$ (49,637)	\$ 1,650	\$ 284,279
Net income .....	—	—	—	31,092	—	—	—	491	31,583
Dividends declared .....	—	—	—	(9,249)	—	—	—	—	(9,249)
Dividend paid to noncontrolling interest .....	—	—	—	—	—	—	—	(882)	(882)
Activity under stock plans ....	—	—	1,816	—	(72,694)	1,781	—	—	3,597
Other comprehensive items ..	—	—	—	—	—	—	22,922	254	23,176
<b>Balance at December 30, 2017</b> .....	14,624,159	\$ 146	\$103,221	\$342,893	3,613,838	\$(88,554)	\$ (26,715)	\$ 1,513	\$ 332,504

The accompanying notes are an integral part of these consolidated financial statements.

**Notes to Consolidated Financial Statements****1. Nature of Operations and Summary of Significant Accounting Policies****Nature of Operations***Continuing Operations*

Kadant Inc. was incorporated in Delaware in November 1991 and currently trades on the New York Stock Exchange under the ticker symbol "KAI."

Kadant Inc. and its subsidiaries' (collectively, the Company) continuing operations include two reportable operating segments, Papermaking Systems and Wood Processing Systems, and a separate product line, Fiber-based Products.

Through its Papermaking Systems segment, the Company develops, manufactures, and markets a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. The Company's principal products include custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.

Through its Wood Processing Systems segment, the Company develops, manufactures, and markets stranders, debarkers, chippers, and logging machinery used in the harvesting and production of lumber and OSB. Through this segment, the Company also provides refurbishment and repair of pulping equipment for the pulp and paper industry.

Through its Fiber-based Products business, the Company manufactures and sells biodegradable, absorbent granules derived from papermaking by-products for use primarily as carriers for agricultural, home lawn and garden, and professional lawn, turf and ornamental applications, as well as for oil and grease absorption.

See Note 11, Business Segment and Geographical information for further details.

*Discontinued Operation*

In 2005, the Company's Kadant Composites LLC subsidiary sold substantially all of its assets to a third party. All activity related to this business is classified in the results of the discontinued operation in the accompanying consolidated financial statements.

*Noncontrolling Interest*

One of the Company's foreign subsidiaries that manufactures fluid-handling products is part of a joint venture agreement with an Italian company in which they hold a 50 percent ownership interest. The agreement provides the subsidiary with the option to purchase the remaining 50 percent interest in the joint venture at any time after January 1, 2006.

**Principles of Consolidation**

The accompanying consolidated financial statements of the Company include the accounts of its wholly and majority-owned subsidiaries. All material intercompany accounts and transactions have been eliminated.

**Fiscal Year**

The Company has adopted a fiscal year ending on the Saturday nearest to December 31. References to 2017, 2016, and 2015 are for the fiscal years ended December 30, 2017, December 31, 2016, and January 2, 2016, respectively.

**Use of Estimates and Critical Accounting Policies**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, 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.

Critical accounting policies are defined as those that entail significant judgments and estimates, and could potentially result in materially different results under different assumptions and conditions. The Company believes that the most critical accounting policies upon which its financial position depends, and which involve the most complex or subjective decisions or assessments, concern revenue recognition, income taxes, the valuation of goodwill and intangible assets, inventories, and pension obligations. A discussion on the application of these and other accounting policies is included in Notes 1 and 3.

**Notes to Consolidated Financial Statements****1. Nature of Operations and Summary of Significant Accounting Policies (continued)**

Although the Company makes every effort to ensure the accuracy of the estimates and assumptions used in the preparation of its consolidated financial statements or in the application of accounting policies, if business conditions were different, or if the Company were to use different estimates and assumptions, it is possible that materially different amounts could be reported in the Company's consolidated financial statements.

**Revenue Recognition and Accounts Receivable**

The Company recognizes revenue under Accounting Standards Codification (ASC) 605, "Revenue Recognition," (ASC 605) when the following criteria have been met: persuasive evidence of an arrangement exists, delivery has occurred or service has been rendered, the sales price is fixed or determinable, and collectability is reasonably assured. When the terms of the sale include customer acceptance provisions, and compliance with those provisions cannot be demonstrated until customer acceptance, revenues are recognized upon such acceptance. The Company includes in revenue amounts invoiced for shipping and handling with the corresponding costs reflected in cost of revenues. Provisions for discounts, warranties, returns and other adjustments are provided for in the period in which the related sales are recorded. Sales taxes, value-added taxes and certain excise taxes collected from customers and remitted to governmental authorities are accounted for on a net basis and therefore are excluded from revenue.

Most of the Company's revenue is recognized in accordance with the accounting policies in the preceding paragraph. However, when a sale arrangement involves multiple elements, such as equipment and installation, the Company considers the guidance in ASC 605. Such transactions are evaluated to determine whether the deliverables in the arrangement represent separate units of accounting based on the following criteria: the delivered item has value to the customer on a stand-alone basis, and if the contract includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially under the control of the Company. Revenue is allocated to each unit of accounting or element based on relative selling prices and is recognized as each element is delivered or completed. The Company determines relative selling prices by using either vendor-specific objective evidence (VSOE) if that exists, or third-party evidence of selling price. When neither VSOE nor third-party evidence of selling price exists for a deliverable, the Company uses its best estimate of the selling price for that deliverable. In cases in which elements cannot be treated as separate units of accounting, the elements are combined into a single unit of accounting for revenue recognition purposes.

In addition, revenues and profits on certain long-term contracts are recognized using the percentage-of-completion method or the completed-contract method of accounting pursuant to ASC 605. Revenues recorded under the percentage-of-completion method were \$27,676,000 in 2017, \$23,300,000 in 2016, and \$32,078,000 in 2015. The percentage of completion is determined by comparing the actual costs incurred to date to an estimate of total costs to be incurred on each contract. If a loss is indicated on any contract in process, a provision is made currently for the entire estimated loss. The Company's contracts generally provide for billing of customers upon the attainment of certain milestones specified in each contract. Revenues earned on contracts in process in excess of billings are classified as unbilled contract costs and fees and amounts billed in excess of revenues earned are classified as billings in excess of contract costs and fees. There are no significant amounts included in the accompanying consolidated balance sheet that are not expected to be recovered from existing contracts at current contract values, or that are not expected to be collected within one year, including amounts that are billed but not paid under retainage provisions.

For long-term contracts that do not meet the criteria under ASC 605-35 to be accounted for under the percentage-of-completion method, the Company recognizes revenue using the completed-contract method. When using the completed-contract method, the Company recognizes revenue when the contract is substantially complete, the product is delivered and, if applicable, the customer acceptance criteria are met. Customer deposits included \$2,945,000 at year-end 2017 and \$5,158,000 at year-end 2016 of advance payments, net of accumulated costs, on long-term contracts accounted for under the completed-contract method.

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Company exercises judgment in determining its allowance for doubtful accounts, which is based on its historical collection experience, current trends, credit policies, specific customer collection issues, and accounts receivable aging categories. In determining this allowance, the Company looks at historical write-offs of its receivables. The Company also looks at current trends in the credit quality of its customer base as well as changes in its credit policies. The Company performs ongoing credit evaluations of its customers and adjusts credit limits based upon payment history and each customer's current creditworthiness. The Company continuously monitors collections and payments from its customers. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered. In some instances, the Company utilizes letters of credit to mitigate its credit exposure.

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

The changes in the allowance for doubtful accounts are as follows:

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
Balance at Beginning of Year .....	\$ 2,395	\$ 2,163	\$ 2,198
Provision charged to expense .....	436	453	379
Accounts written off .....	(159)	(128)	(205)
Currency translation .....	207	(93)	(209)
Balance at End of Year .....	<u>\$ 2,879</u>	<u>\$ 2,395</u>	<u>\$ 2,163</u>

The Company's Chinese subsidiaries may receive banker's acceptance drafts from customers as payment for their trade accounts receivable. The banker's acceptance drafts are noninterest bearing obligations of the issuing bank and mature within six months of the origination date. The Company's subsidiaries may sell the drafts at a discount to a third-party financial institution or transfer the drafts to vendors in settlement of current accounts payable prior to the scheduled maturity date. These drafts, which totaled \$15,960,000 at year-end 2017 and \$7,852,000 at year-end 2016, are included in accounts receivable in the accompanying consolidated balance sheet until the subsidiary sells the drafts to a bank and receives a discounted amount, transfers the banker's acceptance drafts in settlement of current accounts payable prior to maturity, or obtains cash payment on the scheduled maturity date.

**Warranty Obligations**

The Company provides for the estimated cost of product warranties at the time of sale based on the historical occurrence rates and repair costs, as well as knowledge of any specific warranty problems that indicate projected warranty costs may vary from historical patterns. The Company typically negotiates the terms regarding warranty coverage and length of warranty depending on the products and applications. While the Company engages in extensive product quality programs and processes, the Company's warranty obligation is affected by product failure rates, repair costs, service delivery costs incurred in correcting a product failure, and supplier warranties on parts delivered to the Company. Should these factors or actual results differ from the Company's estimates, revisions to the estimated warranty liability would be required.

The changes in the carrying amount of accrued warranty costs included in other current liabilities in the accompanying consolidated balance sheet are as follows:

(In thousands)	December 30, 2017	December 31, 2016
Balance at Beginning of Year .....	\$ 3,843	\$ 3,670
Provision charged to expense .....	2,652	3,091
Usage .....	(2,225)	(3,632)
Acquisitions .....	790	991
Currency translation .....	438	(277)
Balance at End of Year .....	<u>\$ 5,498</u>	<u>\$ 3,843</u>

**Income Taxes**

In accordance with ASC 740, "Income Taxes," (ASC 740), the Company recognizes deferred income taxes based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities, calculated using enacted tax rates in effect for the year in which these differences are expected to reverse. A tax valuation allowance is established, as needed, to reduce deferred tax assets to the amount expected to be realized. In the period in which it becomes more likely than not that some or all of the deferred tax assets will be realized, the valuation allowance will be adjusted.

## Notes to Consolidated Financial Statements

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)**

It is the Company's policy to provide for uncertain tax positions and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in the provision for income taxes. At December 30, 2017, the Company believes that it has appropriately accounted for any liability for unrecognized tax benefits. To the extent the Company prevails in matters for which a liability for an unrecognized tax benefit is established, the statute of limitations expires for a tax jurisdiction year, or the Company is required to pay amounts in excess of the liability, its effective tax rate in a given financial statement period may be affected.

**Earnings per Share**

Basic earnings per share (EPS) is computed by dividing net income attributable to Kadant by the weighted average number of shares outstanding during the year. Diluted EPS is computed using the treasury stock method assuming the effect of all potentially dilutive securities, including stock options, restricted stock units (RSUs) and employee stock purchase plan shares.

**Cash and Cash Equivalents**

At year-end 2017 and year-end 2016, the Company's cash equivalents included investments in money market funds and other marketable securities, which had maturities of three months or less at the date of purchase. The carrying amounts of cash equivalents approximate their fair values due to the short-term nature of these instruments.

**Restricted Cash**

The Company had restricted cash of \$1,421,000 at year-end 2017 and \$2,082,000 at year-end 2016. This cash serves as collateral for bank guarantees primarily associated with providing assurance to customers that the Company will fulfill certain customer obligations entered into in the normal course of business. The majority of the bank guarantees will expire by the end of 2018.

**Supplemental Cash Flow Information**

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
Cash Paid for Interest.....	\$ 2,624	\$ 1,183	\$ 616
Cash Paid for Income Taxes, Net of Refunds.....	\$ 20,559	\$ 15,632	\$ 11,497
Non-Cash Investing Activities:			
Fair value of assets of acquired.....	\$ 242,048	\$ 84,969	\$ —
Cash paid for acquired businesses.....	(206,950)	(58,894)	—
Liabilities assumed of acquired businesses.....	<u>\$ 35,098</u>	<u>\$ 26,075</u>	<u>\$ —</u>
Non-cash additions to property, plant, and equipment.....	\$ 4,620	\$ 379	\$ 614
Non-Cash Financing Activities:			
Issuance of Company common stock upon vesting of RSUs.....	\$ 3,192	\$ 3,463	\$ 3,423
Dividends declared but unpaid.....	\$ 2,316	\$ 2,078	\$ 1,831

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

## Inventories

Inventories are stated at the lower of cost (on a first-in, first-out; or weighted average basis) or net realizable value and include materials, labor, and manufacturing overhead. The Company regularly reviews its quantities of inventories on hand and compares these amounts to the historical and forecasted usage of and demand for each particular product or product line. The Company records a charge to cost of revenues for excess and obsolete inventory to reduce the carrying value of inventories to net realizable value.

The components of inventories are as follows:

(In thousands)	December 30, 2017	December 31, 2016
Raw Materials and Supplies .....	\$ 38,952	\$ 21,086
Work in Process .....	18,203	12,293
Finished Goods (includes \$1,883 and \$1,249 at customer locations) .....	27,778	21,572
	<u>\$ 84,933</u>	<u>\$ 54,951</u>

## Property, Plant, and Equipment

Property, plant, and equipment are stated at cost. The costs of additions and improvements are capitalized, while maintenance and repairs are charged to expense as incurred. The Company provides for depreciation and amortization primarily using the straight-line method over the estimated useful lives of the property as follows: buildings, 10 to 40 years; machinery and equipment, 2 to 10 years; and leasehold improvements, the shorter of the term of the lease or the life of the asset. For construction in progress, no provision for depreciation is made until the assets are available and ready for use.

Property, plant, and equipment consist of the following:

(In thousands)	December 30, 2017	December 31, 2016
Land .....	\$ 7,894	\$ 4,827
Buildings .....	48,094	39,706
Machinery, Equipment, and Leasehold Improvements .....	94,779	78,953
Construction in Progress .....	14,464	938
	<u>165,231</u>	<u>124,424</u>
Less: Accumulated Depreciation and Amortization .....	85,508	76,720
	<u>\$ 79,723</u>	<u>\$ 47,704</u>

At year-end 2017, the construction in progress primarily relates to the construction of a manufacturing facility in the U.S. that will be completed in the first half of 2018, at which time the assets will be transferred to building and machinery and equipment and depreciated over their estimated useful lives.

Property, plant, and equipment at year-end 2017 and year-end 2016 included assets under capital leases. The gross amount of property, plant, and equipment under capital leases was \$6,038,000 at year-end 2017 and \$5,335,000 at year-end 2016. Accumulated amortization associated with capital leases was \$550,000 at year-end 2017 and \$221,000 at year-end 2016. Depreciation and amortization expense, including amortization of assets under capital lease, was \$7,418,000 in 2017, \$6,194,000 in 2016, and \$5,814,000 in 2015.

## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

## Intangible Assets, Net

Acquired intangible assets by major asset class are as follows:

(In thousands)	Gross	Currency Translation	Accumulated Amortization	Net
<b>December 30, 2017</b>				
<i>Definite-Lived</i>				
Customer relationships .....	\$ 113,301	\$ (621)	\$ (28,789)	\$ 83,891
Product technology .....	46,501	(737)	(19,841)	25,923
Tradenames .....	5,227	(262)	(1,504)	3,461
Other .....	13,754	(35)	(10,863)	2,856
	<u>178,783</u>	<u>(1,655)</u>	<u>(60,997)</u>	<u>116,131</u>
<i>Indefinite-Lived</i>				
Tradenames .....	16,600	305	—	16,905
Acquired Intangible Assets .....	<u>\$ 195,383</u>	<u>\$ (1,350)</u>	<u>\$ (60,997)</u>	<u>\$ 133,036</u>
<b>December 31, 2016</b>				
<i>Definite-Lived</i>				
Customer relationships .....	\$ 59,101	\$ (5,202)	\$ (21,805)	\$ 32,094
Product technology .....	27,101	(2,052)	(17,105)	7,944
Tradenames .....	4,447	(591)	(1,065)	2,791
Other .....	11,094	(228)	(9,065)	1,801
	<u>101,743</u>	<u>(8,073)</u>	<u>(49,040)</u>	<u>44,630</u>
<i>Indefinite-Lived</i>				
Tradenames .....	8,100	—	—	8,100
Acquired Intangible Assets .....	<u>\$ 109,843</u>	<u>\$ (8,073)</u>	<u>\$ (49,040)</u>	<u>\$ 52,730</u>

Intangible assets are initially recorded at fair value at the date of acquisition and are stated net of accumulated amortization and currency translation in the accompanying consolidated balance sheet. The Company amortizes definite-lived intangible assets over lives that have been determined based on the anticipated cash flow benefits of the intangible asset. Definite-lived intangible assets have a weighted average amortization period of 12 years. Amortization of intangible assets was \$11,957,000 in 2017, \$8,132,000 in 2016, and \$5,007,000 in 2015. The estimated future amortization expense of definite-lived intangible assets is \$14,409,000 in 2018; \$13,482,000 in 2019; \$12,882,000 in 2020; \$12,340,000 in 2021; \$11,536,000 in 2022; and \$51,482,000 in the aggregate thereafter.

## Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the identifiable net assets of the acquired business at the date of acquisition. The Company's acquisitions have historically been made at prices above the fair value of the acquired net assets, resulting in goodwill, due to the expectation of synergies from combining the businesses.



## Notes to Consolidated Financial Statements

## 1. Nature of Operations and Summary of Significant Accounting Policies (continued)

The changes in the carrying amount of goodwill by segment are as follows:

(In thousands)	Papermaking Systems Segment	Wood Processing Systems Segment	Total
<b>Balance as of January 2, 2016</b>			
Gross balance.....	\$ 187,720	\$ 16,840	\$ 204,560
Accumulated impairment losses .....	(85,509)	—	(85,509)
Net balance .....	<u>102,211</u>	<u>16,840</u>	<u>119,051</u>
<b>2016 Adjustments</b>			
Acquisition (Note 2).....	38,552	—	38,552
Currency Translation .....	(6,573)	425	(6,148)
Total 2016 Adjustments.....	<u>31,979</u>	<u>425</u>	<u>32,404</u>
<b>Balance at December 31, 2016</b>			
Gross balance.....	219,699	17,265	236,964
Accumulated impairment losses .....	(85,509)	—	(85,509)
Net balance .....	<u>134,190</u>	<u>17,265</u>	<u>151,455</u>
<b>2017 Adjustments</b>			
Acquisitions (Note 2) .....	16,373	85,508	101,881
Currency Translation .....	10,942	3,723	14,665
Total 2017 Adjustments.....	<u>27,315</u>	<u>89,231</u>	<u>116,546</u>
<b>Balance at December 30, 2017</b>			
Gross balance.....	247,014	106,496	353,510
Accumulated impairment losses .....	(85,509)	—	(85,509)
Net balance .....	<u>\$ 161,505</u>	<u>\$ 106,496</u>	<u>\$ 268,001</u>

**Impairment of Long-Lived Assets**

The Company evaluates the recoverability of goodwill and indefinite-lived intangible assets as of the end of each fiscal year, or more frequently if events or changes in circumstances, such as a significant decline in sales, earnings, or cash flows, or material adverse changes in the business climate, indicate that the carrying value of an asset might be impaired. In 2017, the Company adopted the Financial Accounting Standards Board's (FASB) Accounting Standards Update (ASU) No. 2017-04, *Intangibles - Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment*, which eliminates Step 2 in goodwill impairment testing. See the related topic in "Recent Accounting Pronouncements" in this section for further details.

At year-end 2017 and year-end 2016, the Company performed a qualitative impairment analysis of its goodwill and determined that the asset was not impaired. The impairment analysis included an assessment of certain qualitative factors including, but not limited to, the results of prior fair value calculations, the movement of the Company's share price and market capitalization, the reporting unit and overall financial performance, and macroeconomic and industry conditions. The Company considered the qualitative factors and weighed the evidence obtained, and determined that it was not more likely than not that the fair value of any of the assets was less than its carrying amount. Although the Company believes the factors considered in the impairment analysis are reasonable, significant changes in any one of the assumptions used could have produced a different result.

Goodwill by reporting unit is as follows:

(In thousands)	December 30, 2017	December 31, 2016
Stock-Preparation .....	\$ 60,275	\$ 54,751
Doctoring, Cleaning, & Filtration.....	35,941	33,839
Fluid-Handling.....	65,289	45,600
Wood Processing Systems .....	106,496	17,265
	<u>\$ 268,001</u>	<u>\$ 151,455</u>

At year-end 2017 and year-end 2016, the Company performed a quantitative impairment analysis on its indefinite-lived intangible assets and determined that the assets were not impaired.

**Notes to Consolidated Financial Statements****1. Nature of Operations and Summary of Significant Accounting Policies (continued)**

The Company assesses its long-lived assets, other than goodwill and indefinite-lived intangible assets, for impairment whenever facts and circumstances indicate that the carrying amounts may not be fully recoverable. To analyze recoverability, the Company projects undiscounted net future cash flows over the remaining lives of such assets or asset groups. If these projected cash flows were to be less than the carrying amounts, an impairment loss would be recognized, resulting in a write-down of the assets with a corresponding charge to earnings. The impairment loss would be measured based upon the difference between the carrying amounts and the fair values of the assets. No indicators of impairment were identified in 2017 or 2016.

**Foreign Currency Translation and Transactions**

All assets and liabilities of the Company's foreign subsidiaries are translated at fiscal year-end exchange rates, and revenues and expenses are translated at average exchange rates for each quarter in accordance with ASC 830, "Foreign Currency Matters." Resulting translation adjustments are reflected in the "accumulated other comprehensive items" (AOCI) component of stockholders' equity (see Note 13). Foreign currency transaction gains and losses are included in the accompanying consolidated statement of income and are not material in the three years presented.

**Stock-Based Compensation**

The Company recognizes compensation cost for all stock-based awards granted to employees and directors based on the grant date estimate of fair value for those awards. The fair value of RSUs is based on the grant date trading price of the Company's common stock, reduced by the present value of estimated dividends foregone during the requisite service period. The fair value of stock options is based on the Black-Scholes option-pricing model. For stock options and time-based RSUs, compensation expense is recognized ratably over the requisite service period for the entire award net of forfeitures. For performance-based RSUs, compensation expense is recognized ratably over the requisite service period for each separately-vesting portion of the award net of forfeitures and remeasured at each reporting period until the total number of RSUs to be issued is known. Compensation expense related to any modified stock-based awards is based on the fair value for those awards as of the modification date with any remaining incremental compensation expense recognized ratably over the remaining requisite service period.

**Derivatives**

The Company uses derivative instruments primarily to reduce its exposure to changes in currency exchange rates and interest rates. When the Company enters into a derivative contract, the Company makes a determination as to whether the transaction is deemed to be a hedge for accounting purposes. For a contract deemed to be a hedge, the Company formally documents the relationship between the derivative instrument and the risk being hedged. In this documentation, the Company specifically identifies the asset, liability, forecasted transaction, cash flow, or net investment that has been designated as the hedged item, and evaluates whether the derivative instrument is expected to reduce the risks associated with the hedged item. To the extent these criteria are not met, the Company does not use hedge accounting for the derivative. The changes in the fair value of a derivative not deemed to be a hedge are recorded currently in earnings. The Company does not hold or engage in transactions involving derivative instruments for purposes other than risk management.

ASC 815, "Derivatives and Hedging," requires that all derivatives be recognized on the balance sheet at fair value. For derivatives designated as cash flow hedges, the related gains or losses on these contracts are deferred as a component of AOCI. These deferred gains and losses are recognized in the period in which the underlying anticipated transaction occurs. For derivatives designated as fair value hedges, the unrealized gains and losses resulting from the impact of currency exchange rate movements are recognized in earnings in the period in which the exchange rates change and offset the currency gains and losses on the underlying exposures being hedged. The Company performs an evaluation of the effectiveness of the hedge both at inception and on an ongoing basis. The ineffective portion of a hedge, if any, and changes in the fair value of a derivative not deemed to be a hedge, are recorded in the consolidated statement of income.

**Recent Accounting Pronouncements**

*Revenue from Contracts with Customers (Topic 606), Section A-Summary and Amendments That Create Revenue from Contracts with Customers (Topic 606) and Other Assets and Deferred Costs-Contracts with Customers (Subtopic 340-40).* In May 2014, the FASB issued ASU No. 2014-09, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new guidance provides a five-step model to assess transactions to determine when and how much revenue is recognized. The ASU will replace most existing revenue recognition guidance in GAAP. In March 2016, the FASB issued ASU No. 2016-08, which further clarifies the guidance on the principal versus agent considerations within ASU No. 2014-09. In April 2016, the FASB issued ASU No. 2016-10 to expand the

## Notes to Consolidated Financial Statements

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)**

guidance on identifying performance obligations and licensing within ASU 2014-09. In May 2016, the FASB issued ASU No. 2016-11, which rescinds certain previously-issued guidance, including, among other items, guidance relating to accounting for shipping and handling fees and freight services effective upon adoption of ASU No. 2014-09. Also in May 2016, the FASB issued ASU No. 2016-12, which narrowly amended the revenue recognition guidance regarding collectability, noncash consideration, presentation of sales tax and transition. In December 2016, the FASB issued ASU No. 2016-20, which clarifies narrow aspects of Topic 606 and corrects unintended application of the guidance.

The Company adopted these ASUs using the modified retrospective transition approach beginning in fiscal 2018. Under this approach, the guidance applies to all new contracts initiated in fiscal 2018. For existing contracts that have remaining obligations as of the beginning of fiscal 2018, any difference between the recognition criteria in these ASUs and the Company's current revenue recognition practices were recognized using a cumulative-effect adjustment to decrease retained earnings by approximately \$100,000 to \$300,000. This impact includes a reduction of retained earnings associated with certain contracts which were previously accounted for under the percentage-of-completion method of accounting, but do not meet the requirements for over time recognition under Topic 606. Amounts previously recognized in fiscal 2017 based on percentage-of-completion will be deferred at the beginning of fiscal 2018 and will be recognized along with the remaining revenue and costs in fiscal 2018 when control of the asset has been transferred to the customer. Partially offsetting this is an increase in retained earnings primarily related to contracts, which meet the over time criteria under the new revenue standard and, as a result, the portion of the contract completed as of the beginning of fiscal 2018 was recognized immediately in retained earnings.

The Company is substantially complete with its contract and business process review and has implemented changes to its controls to support the recognition criteria and disclosure requirements of these ASUs.

*Inventory (Topic 330), Simplifying the Measurement of Inventory.* In July 2015, the FASB issued ASU No. 2015-11, which requires that an entity measure inventory within the scope of this ASU at the lower of cost or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Substantial and unusual losses that result from subsequent measurement of inventory should be disclosed in the financial statements. The Company adopted this ASU at the beginning of fiscal 2017 with no impact on the Company's consolidated financial statements.

*Leases (Topic 842).* In February 2016, the FASB issued ASU No. 2016-02, which requires a lessee to recognize a right-of-use asset and a lease liability for operating leases, initially measured at the present value of the future lease payments, in its balance sheet. This ASU also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. This new guidance is effective for the Company in fiscal 2019. Early adoption is permitted. As part of the implementation of this new standard, the Company is in the process of reviewing current accounting policies and assessing the practical expedients allowed under this new guidance. The Company expects that most of its operating lease commitments will be subject to the new standard and recognized as operating lease liabilities and right-of-use assets upon adoption. The Company is required to use the modified retrospective transition method upon adoption. This ASU will require that the Company update its systems, processes and controls to account for its leases. The Company is currently evaluating the other effects that the adoption of this ASU will have on its consolidated financial statements, as well as on its systems, processes and controls.

*Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments.* In June 2016, the FASB issued ASU No. 2016-13, which significantly changes the way entities recognize impairment of many financial assets by requiring immediate recognition of estimated credit losses expected to occur over their remaining lives. This new guidance is effective for the Company in fiscal 2020. Early adoption is permitted beginning in fiscal 2019. The Company is currently evaluating the effects that the adoption of this ASU will have on its consolidated financial statements.

*Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments.* In August 2016, the FASB issued ASU No. 2016-15, which simplifies the diversity in practice related to the presentation and classification of certain cash receipts and cash payments in the statement of cash flows under Topic 230. This ASU addresses the following eight specific cash flow issues: debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance; distributions received from equity method investees; beneficial interests in securitization transactions; and separately identifiable cash flows and application of the predominance principle. The Company adopted this ASU at the beginning of fiscal 2018 with no impact on the Company's consolidated statement of cash flows.

*Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory.* In October 2016, the FASB issued ASU No. 2016-16, which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs and eliminates the exception for an intra-entity transfer of an asset other than

## Notes to Consolidated Financial Statements

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)**

inventory. The Company adopted this ASU at the beginning of fiscal 2018 on a modified retrospective basis, which did not have a material effect on its consolidated financial statements.

*Statement of Cash Flows (Topic 230), Restricted Cash.* In November 2016, the FASB issued ASU No. 2016-18, which requires inclusion of restricted cash and restricted cash equivalents within cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The Company adopted this ASU at the beginning of fiscal 2018 and will apply the changes to the consolidated statement of cash flows retrospectively.

*Business Combinations (Topic 805), Clarifying the Definition of a Business.* In January 2017, the FASB issued ASU No. 2017-01, which clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions or disposals of assets or businesses. The revised definition of a business under this ASU will reduce the number of transactions that are accounted for as business combinations. The Company adopted this ASU on a prospective basis at the beginning of fiscal 2018. The adoption of this ASU will impact how the Company assesses acquisitions and disposals of businesses in the future.

*Intangibles - Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment.* In January 2017, the FASB issued ASU No. 2017-04, which eliminates Step 2 in goodwill impairment testing, which requires that goodwill impairment losses be measured as the difference between the implied value of a reporting unit's goodwill and its carrying amount. This ASU will reduce the cost and complexity of impairment testing by requiring goodwill impairment losses to be measured as the excess of the reporting unit's carrying amount, including goodwill and related goodwill tax effects, over its fair value. The Company adopted this ASU on a prospective basis in the fourth quarter of fiscal 2017 with no impact on the Company's consolidated financial statements.

*Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post-retirement Benefit Cost.* In March 2017, the FASB issued ASU No. 2017-07, which requires employers to include only the service cost component of net periodic pension cost and net periodic post-retirement benefit cost in operating expenses in the same income statement line item as the related employees' compensation costs. The other components of net benefit cost, including interest costs, amortization of prior service costs and settlement and curtailment effects, are to be included in non-operating expenses. The Company adopted this ASU at the beginning of fiscal 2018 and prior periods will be restated with no impact on the Company's consolidated net income.

*Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting.* In May 2017, the FASB issued ASU No. 2017-09, which provides clarity on which changes to the terms or conditions of share-based payment awards require entities to apply the modification accounting provisions required in Topic 718. The Company adopted this ASU on a prospective basis at the beginning of fiscal 2018. The adoption of this ASU did not have a material impact on the Company's consolidated financial statements.

*Derivatives and Hedging (Topic 815): Targeted Improvements in Accounting for Hedging Activity.* In August 2017, the FASB issued ASU No. 2017-12, which provides improvements to current hedge accounting to better portray the economic results of an entity's risk management activities and to simplify the application of current hedge accounting guidance. This new guidance is effective on a prospective basis for the Company in fiscal 2019. Early adoption is permitted. The Company does not believe that adoption of this ASU will have a material effect on its consolidated financial statements.

*Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.* In February 2018, the FASB issued ASU No. 2018-02, which allows a reclassification from AOCI to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act of 2017 enacted on December 22, 2017. The reclassification is elective and would allow the income tax effects on items that were originally recorded in AOCI be reclassified from AOCI to retained earnings. This ASU is effective for the Company in fiscal year 2019 and interim periods therein and should be applied either at the beginning of the period of adoption or retrospectively to each period in which the income tax effects of the Tax Cuts and Jobs Act of 2017 are recognized. Early adoption is permitted. The Company is currently evaluating the effects that the adoption of this ASU will have on its consolidated financial statements.

## Notes to Consolidated Financial Statements

**2. Acquisitions**

The Company's acquisitions are accounted for using the purchase method of accounting and their results are included in the accompanying financial statements from their respective dates of acquisition. Historically, the Company's acquisitions have been made at prices above the fair value of identifiable net assets, resulting in goodwill. Acquisition transaction costs are included in selling, general, and administrative expenses (SG&A) in the accompanying consolidated statement of income as incurred. The Company recorded acquisition transaction costs of \$5,375,000 in 2017 and \$1,832,000 in 2016.

*2017*

On August 14, 2017, the Company acquired certain assets of Unaflex, LLC (Unaflex) for \$31,274,000 in cash, subject to a post-closing adjustment. The Company funded the acquisition through borrowings under its revolving credit facility. Unaflex, located principally in South Carolina, is a leading manufacturer of expansion joints and related products for process industries. Revenues for Unaflex were \$17,494,000 for the twelve months ended December 31, 2016. This acquisition complements the Company's existing Fluid-Handling product line within the Company's Papermaking Systems segment. The Company expects several synergies in connection with this acquisition, including expanding sales of products offered by Unaflex by leveraging the Company's sales efforts, as well as sourcing and manufacturing efficiencies. Goodwill from the Unaflex acquisition was \$15,657,000, all of which is expected to be deductible for tax purposes. For 2017, the Company recorded revenues of \$7,335,000 and operating income of \$187,000 for Unaflex from its date of acquisition. Included in operating income was amortization expense of \$176,000 associated with acquired profit in inventory.

On July 5, 2017, the Company acquired the forest products business of NII FPG Company (NII FPG) pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for \$170,792,000, net of cash acquired. In connection with the acquisition, the Company borrowed an aggregate \$170,018,000 under its revolving credit facility, including \$62,690,000 of Canadian dollar-denominated and \$61,769,000 of euro-denominated borrowings. NII FPG, which has two primary manufacturing facilities located in Canada and Finland, is a global leader in the design and manufacture of equipment used by sawmills, veneer mills, and other manufacturers in the forest products industry. NII FPG also designs and manufactures logging equipment used in harvesting timber from forest plantations. Revenues for NII FPG were approximately \$81,000,000 for the twelve months ended December 31, 2016. This acquisition extends the Company's presence deeper into the forest products industry and complements its existing Wood Processing Systems segment. The Company expects several synergies in connection with this acquisition, including expansion of product sales at the Company's existing businesses by leveraging NII FPG's geographic presence, as well as sourcing and manufacturing efficiencies. Goodwill from the NII FPG acquisition was \$85,508,000, of which \$33,228,000 is expected to be deductible for tax purposes. For 2017, the Company recorded revenues of \$48,363,000 and operating income of \$1,238,000 for NII FPG from its date of acquisition. Included in operating income was amortization expense of \$6,399,000 associated with acquired profit in inventory and backlog.

In addition, the Company paid \$2,500,000 in cash for another acquisition in the fourth quarter of 2017 within the Papermaking Systems segment.

## Notes to Consolidated Financial Statements

## 2. Acquisitions (continued)

The following table summarizes the estimated fair values of assets acquired and liabilities assumed and the purchase price of the Company's 2017 acquisitions. The purchase price allocation is based upon preliminary information and is subject to change if additional information about the facts and circumstances that existed at the acquisition date becomes available. The final determination of fair value of the assets acquired and liabilities assumed may result in adjustments to the assets and liabilities, including goodwill. During the year ended December 30, 2017, the Company made certain adjustments to its purchase price allocation primarily to adjust working capital, which resulted in a \$1,282,000 increase to goodwill initially recorded. Any subsequent measurement period adjustments are not expected to have a material impact on the Company's results of operations.

(In thousands)	NII FPG	Unaflex	Other	Total
	July 5, 2017	August 14, 2017	October 30, 2017	
<b>Net Assets Acquired:</b>				
Cash and Cash Equivalents .....	\$ 2,219	\$ —	\$ —	\$ 2,219
Accounts Receivable .....	6,542	2,079	—	8,621
Inventories .....	25,246	1,704	—	26,950
Property, Plant, and Equipment .....	12,912	1,194	284	14,390
Other Assets .....	2,375	72	—	2,447
Definite-Lived Intangible Assets				
Customer relationships .....	44,700	8,000	1,500	54,200
Product technology .....	17,100	2,300	—	19,400
Other .....	2,540	900	—	3,440
Indefinite-Lived Intangible Assets				
Tradenames .....	8,500	—	—	8,500
Goodwill .....	85,508	15,657	716	101,881
Total assets acquired .....	<u>207,642</u>	<u>31,906</u>	<u>2,500</u>	<u>242,048</u>
Accounts Payable .....	4,970	358	—	5,328
Customer Deposits .....	7,396	100	—	7,496
Long-Term Deferred Income Taxes .....	16,668	—	—	16,668
Other Liabilities .....	5,597	174	—	5,771
Total liabilities assumed .....	<u>34,631</u>	<u>632</u>	<u>—</u>	<u>35,263</u>
Net assets acquired .....	<u>\$ 173,011</u>	<u>\$ 31,274</u>	<u>\$ 2,500</u>	<u>\$ 206,785</u>
<b>Purchase Price:</b>				
Cash Paid .....	\$ 2,993	\$ —	\$ —	\$ 2,993
Cash Paid to Seller Borrowed Under the Revolving Credit Facility .....	170,018	31,274	2,500	203,792
Total purchase price .....	<u>\$ 173,011</u>	<u>\$ 31,274</u>	<u>\$ 2,500</u>	<u>\$ 206,785</u>

For NII FPG, the weighted-average amortization period for definite-lived intangible assets acquired is 12 years, including weighted-average amortization periods of 15 years for product technology, 11 years for customer relationships, and 4 years for other intangible assets. For Unaflex, the weighted average amortization period for definite-lived intangible assets acquired, including customer relationships, product technology and other intangible assets, is 10 years. For the other acquisition, the amortization period for customer relationships is 11 years.

## Notes to Consolidated Financial Statements

## 2. Acquisitions (continued)

*Unaudited Supplemental Pro Forma Information*

Had the acquisitions of NII FPG and Unaflex been completed as of the beginning of 2016, the Company's pro forma results of operations for 2017 and 2016 would have been as follows:

(In thousands, except per share amounts)	December 30, 2017	December 31, 2016
Revenues .....	\$ 565,710	\$ 508,832
Net Income Attributable to Kadant .....	\$ 44,159	\$ 30,638
Earnings per Share Attributable to Kadant:		
Basic .....	\$ 4.02	\$ 2.82
Diluted .....	\$ 3.90	\$ 2.75

Pro forma results include the following non-recurring pro forma adjustments that were directly attributable to the business combinations:

- Pre-tax charge to SG&A expenses of \$5,360,000 in 2016 and reversal in 2017, for acquisition transaction costs.
- Estimated pre-tax charge to cost of revenues of \$5,137,000 in 2016 and reversal in 2017, for the sale of inventory revalued at the date of acquisition.
- Estimated pre-tax charge to SG&A expenses of \$1,669,000 in 2016 and reversal of \$1,438,000 in 2017, for intangible asset amortization related to acquired backlog.
- Reversal of pre-tax income of \$852,000 in 2017, related to NII FPG's gain on the sale of a building.

These pro forma results of operations have been prepared for comparative purposes only, and they do not purport to be indicative of the results of operations that would have resulted had the acquisitions of NII FPG and Unaflex occurred as of the beginning of 2016, or that may result in the future. The Company's pro forma results including its other acquisition would not have been materially different from the pro forma results presented above had it occurred at the beginning of 2016.

*2016*

On April 4, 2016, the Company acquired all the outstanding shares of RT Holding GmbH, the parent corporation of a group of companies known as the PAALGROUP (PAAL) for 49,713,000 euros, net of cash acquired, or \$56,617,000, pursuant to a post-closing adjustment. The Company paid additional consideration of \$165,000 to the sellers in 2017. In connection with the acquisition, the Company borrowed \$29,866,000 as a euro-denominated borrowing under its revolving credit facility. The remainder of the purchase price was funded from the Company's internal overseas cash.

PAAL, which has operations in Germany, the United Kingdom, France and Spain, manufactures balers and related equipment used in the processing of recyclable and waste materials. This acquisition, which is included in the Company's Papermaking Systems segment's Stock-Preparation product line, broadened the Company's product portfolio and extended its presence deeper into recycling and waste management. The Company anticipated and continues to achieve several synergies in connection with this acquisition, including expanding sales of the products of the acquired business by leveraging the Company's geographic presence to enter or further penetrate existing markets, as well as sourcing and manufacturing efficiencies. Goodwill from the PAAL acquisition was \$38,552,000, which is not deductible for tax purposes. For 2016, Company recorded revenues of \$40,783,000 and operating income of \$2,372,000 for PAAL from its date of acquisition. Included in operating income was amortization expense of \$1,926,000 associated with acquired inventory and backlog.

The following table summarizes the estimated fair values of assets acquired and liabilities assumed and the purchase price of PAAL.

## Notes to Consolidated Financial Statements

## 2. Acquisitions (continued)

(In thousands)	PAAL	
	April 4, 2016	
<b>Net Assets Acquired:</b>		
Cash and Cash Equivalents .....	\$	2,277
Accounts Receivable .....		5,441
Inventories .....		3,947
Property, Plant, and Equipment .....		7,179
Other Assets .....		2,882
Definite-Lived Intangible Assets		
Customer relationships .....		15,831
Product technology .....		4,203
Tradenames .....		2,278
Other .....		2,379
Goodwill .....		38,552
Total assets acquired .....		84,969
Accounts Payable .....		5,536
Customer Deposits .....		2,471
Obligations Under Capital Lease .....		4,842
Long-Term Deferred Income Taxes .....		6,148
Other Liabilities .....		6,913
Total liabilities assumed .....		25,910
Net assets acquired .....	\$	59,059
<b>Purchase Price:</b>		
Cash .....	\$	29,193
Cash Paid to Seller Borrowed Under the Revolving Credit Facility .....		29,866
Total purchase price .....	\$	59,059

For the PAAL acquisition, the weighted-average amortization period for definite-lived intangible assets acquired is 12 years, including weighted-average amortization periods of 13 years for customer relationships, 9 years for product technology, 14 years for tradenames, and 7 years for other intangible assets.

*Unaudited Supplemental Pro Forma Information*

Had the acquisition of PAAL been completed as of the beginning of 2015, the Company's pro forma results of operations for 2016 and 2015 would have been as follows:

(In thousands, except per share amounts)	December 31, 2016	January 2, 2016
Revenues .....	\$ 427,273	\$ 444,350
Net Income Attributable to Kadant .....	\$ 35,321	\$ 33,881
Earnings per Share Attributable to Kadant:		
Basic .....	\$ 3.25	\$ 3.12
Diluted .....	\$ 3.17	\$ 3.05

Pro forma results include the following non-recurring pro forma adjustments that were directly attributable to the business combination:

- Pre-tax charge to SG&A expenses of \$1,832,000 in 2015 and reversal in 2016, for acquisition transaction costs.
- Estimated pre-tax charge to cost of revenues of \$458,000 in 2015 and reversal in 2016, for the sale of inventory revalued at the date of acquisition.



## Notes to Consolidated Financial Statements

**2. Acquisitions (continued)**

- Estimated pre-tax charge to SG&A expenses of \$1,468,000 in 2015 and reversal in 2016, for intangible asset amortization related to acquired backlog.
- Reversal of \$1,636,000 of interest expense in 2015 and \$454,000 in 2016 related to pre-acquisition debt, which was settled in the acquisition.

These pro forma results of operations have been prepared for comparative purposes only, and they do not purport to be indicative of the results of operations that would have resulted had the acquisition of PAAL occurred as of the beginning of 2015, or that may result in the future.

**3. Employee Benefit Plans****Stock-Based Compensation Plans**

The Company maintains stock-based compensation plans primarily for its key employees and directors, although the plans permit awards to others expected to make significant contributions to the future of the Company. The plans authorize the compensation committee of the Company's board of directors (the board committee) to award a variety of stock and stock-based incentives, such as restricted stock, RSUs, nonqualified and incentive stock options, stock bonus shares, or performance-based shares. The award recipients and the terms of awards, including price, granted under these plans are determined by the board committee. Upon a change of control, as defined in the plans, all options or other awards become fully vested and all restrictions lapse. The Company had 486,681 shares available for grant under stock-based compensation plans at year-end 2017. The Company generally issues its common stock out of treasury stock, to the extent available, for share issuances related to its stock-based compensation plans.

The Company recognizes compensation cost for all stock-based awards granted to employees and directors based on the grant date estimate of fair value for those awards. The fair value of RSUs is based on the grant date trading price of the Company's common stock, reduced by the present value of estimated dividends foregone during the requisite service period. The fair value of stock options is based on the Black-Scholes option-pricing model.

The components of pre-tax stock-based compensation expense included in SG&A expenses in the accompanying consolidated statement of income are as follows:

<b>(In thousands)</b>	<b>December 30, 2017</b>	<b>December 31, 2016</b>	<b>January 2, 2016</b>
Restricted Stock Unit Awards.....	\$ 5,621	\$ 4,848	\$ 5,185
Employee Stock Purchase Plan Awards.....	182	170	136
Stock Option Awards.....	—	51	420
Total.....	<u>\$ 5,803</u>	<u>\$ 5,069</u>	<u>\$ 5,741</u>

Prior to 2016, the Company elected to recognize excess income tax benefits from stock option exercises and the vesting of RSUs in capital in excess of par value using the tax return ordering approach. The Company measured the tax benefit associated with excess tax deductions related to stock-based compensation expense by multiplying the excess tax deductions by the statutory tax rates. The Company recognized income tax benefits in capital in excess of par value of \$881,000 in 2015 associated with stock-based compensation. As a result of the adoption of ASU No. 2016-09 in 2016, the Company did not recognize any income tax benefits in capital in excess of par value in 2017 and 2016.

The Company grants RSUs to non-employee directors and certain employees. Holders of RSUs have no voting rights and are not entitled to receive cash dividends.

*Non-Employee Director Restricted Stock Units*

The Company granted 3,000 RSUs in 2017 and 5,000 RSUs in 2016 and 2015 to each of its non-employee directors. The RSUs vested ratably on the last day of each fiscal quarter within the year.

The Company also granted 10,000 cash-settled RSUs to each of its non-employee directors in March 2015, which totaled 50,000 in the aggregate and had a grant date fair value of \$2,279,000. No compensation expense was recognized as the RSUs would only have vested if a change in control as defined in the Company's 2006 equity incentive plan had occurred before the last day of the first quarter of 2020. During 2015, 10,000 RSUs were forfeited, and the remaining 40,000 RSUs were outstanding at year-end 2016. These remaining cash-settled RSUs were canceled without value in March 2017.

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

*Performance-Based Restricted Stock Units*

The Company grants performance-based RSUs to certain officers of the Company. Each performance-based RSU represents the right to receive one share of the Company's common stock upon vesting. The RSUs are subject to adjustment based on the achievement of a performance measure selected for the fiscal year, which historically has been a specified target for adjusted earnings before interest, taxes, depreciation, and amortization (adjusted EBITDA) generated from continuing operations. Following adjustment, the RSUs are subject to additional time-based vesting, and vest in three equal annual installments, provided that the officer is employed by the Company on the applicable vesting dates.

The Company recognizes compensation expense associated with performance-based RSUs ratably over the requisite service period for each separately-vesting portion of the award based on the grant date fair value, and net of actual forfeitures recorded when they occur. Compensation expense recognized is remeasured each reporting period until the total number of RSUs to be issued is known. Unrecognized compensation expense related to the unvested performance-based RSUs totaled approximately \$2,124,000 at year-end 2017, and will be recognized over a weighted average period of 1.3 years.

The performance-based RSU agreements provide for forfeiture in certain events, such as voluntary or involuntary termination of employment, and for acceleration of vesting in certain events, such as death, disability or a change in control of the Company. If death, disability, or a change in control occurs prior to the end of the performance period, the officer will receive the target RSU amount; otherwise, the officer will receive the number of deliverable RSUs based on the achievement of the performance goal, as stated in the RSU agreements.

*Time-Based Restricted Stock Units*

The Company grants time-based RSUs to its officers and other employees of the Company. Each time-based RSU represents the right to receive one share of the Company's common stock upon vesting. The Company recognizes compensation expense associated with these time-based RSUs ratably over the requisite service period for the entire award based on the grant date fair value, and net of actual forfeitures recorded when they occur. The time-based RSU agreement provides for forfeiture in certain events, such as voluntary or involuntary termination of employment, and for acceleration of vesting in certain events, such as death, disability, or a change in control of the Company. Unrecognized compensation expense related to the time-based RSUs totaled approximately \$2,565,000 at year-end 2017, and will be recognized over a weighted average period of 1.8 years.

A summary of the activity of the Company's unvested RSUs in 2017 is as follows:

	Units (In thousands)	Weighted Average Grant- Date Fair Value
Unvested RSUs at December 31, 2016.....	203	\$ 40.23
Granted .....	110	\$ 59.30
Vested .....	(111)	\$ 42.81
Forfeited / Expired .....	(3)	\$ 43.75
Unvested RSUs at December 30, 2017.....	<u>199</u>	<u>\$ 49.32</u>

The weighted-average grant date fair value of RSUs granted was \$59.30 in 2017, \$40.41 in 2016, and \$44.75 in 2015. The total fair value of shares vested was \$6,719,000 in 2017, \$6,233,000 in 2016, and \$7,502,000 in 2015.

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

*Stock Options*

The Company did not grant stock options during the last three fiscal years. Prior to 2014, the Company granted nonqualified stock options to its executive officers that vested over three years and were not exercisable until vested. All options awarded in prior periods were granted at an exercise price equal to the fair market value of the Company's common stock on the date of grant. Stock options vested in three equal annual installments beginning on the first anniversary of the grant date, provided that the recipient remained employed by the Company on the applicable vesting dates and expire on the tenth anniversary of the grant date. All outstanding stock options are fully vested. The Company recognized compensation expense associated with these stock options ratably over the requisite service period for the entire award based on the grant date fair value, and net of forfeitures. There was no unrecognized compensation expense related to these stock options at year-end 2017.

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including expected stock price volatility. Expected stock price volatility was calculated based on a review of the Company's actual historic stock prices commensurate with the expected life of the award. The expected option life was derived based on a review of the Company's historic option holding periods, including consideration of the holding period inherent in currently vested but unexercised options. The expected annual dividend rate was calculated by dividing the Company's annual dividend by the closing stock price on the grant date. The risk-free interest rate is based on the yield on zero-coupon U.S. Treasury securities for a period that is commensurate with the expected term of the option. The compensation expense recognized for these equity-based awards was net of estimated forfeitures. Forfeitures were estimated based on an analysis of actual option forfeitures.

A summary of the Company's stock option activity in 2017 is as follows:

<b>(In thousands, except per share amounts)</b>	<b>Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life</b>	<b>Aggregate Intrinsic Value (a)</b>
Options Outstanding at December 31, 2016 .....	307	\$ 20.72		
Granted, Exercised and Canceled .....	—	\$ —		
Options Outstanding at December 30, 2017 .....	<u>307</u>	\$ 20.72	3.5 years	\$ 24,493
Vested and Exercisable at December 30, 2017 .....	<u>307</u>	\$ 20.72	3.5 years	\$ 24,493

(a) The closing price per share on the last trading day prior to year-end 2017 was \$100.40.

There were no stock option exercises in 2017. A summary of the Company's stock option exercises in 2016 and 2015 is as follows:

<b>(In thousands)</b>	<b>December 31, 2016</b>	<b>January 2, 2016</b>
Total Intrinsic Value of Options Exercised .....	\$ 1,341	\$ 442
Cash Received from Options Exercised .....	\$ 1,189	\$ 284

*Modified Awards*

On September 20, 2017, the Company entered into an executive transition agreement with its vice president, general counsel and secretary in connection with her retirement on July 1, 2018. This agreement included provisions for post-employment compensation and modifications to outstanding equity awards. The Company will recognize \$374,000 of post-employment compensation ratably through the retirement date. Pursuant to this agreement, all unvested RSUs vest at the retirement date. As of September 20, 2017, 4,254 RSUs were remeasured at a fair value of \$93.82 per unit. The remaining compensation expense associated with the modified RSUs totaled \$332,000 as of September 20, 2017, which will be recognized ratably through the retirement date.

## Notes to Consolidated Financial Statements

**3. Employee Benefit Plans (continued)***Employee Stock Purchase Plan*

The Company's eligible U.S. employees may elect to participate in its employee stock purchase plan. Under the plan, shares of the Company's common stock may be purchased at a 15% discount from the fair market value at the beginning or end of the purchase period, whichever is lower. Shares purchased under the plan are subject to a one-year resale restriction and are purchased through payroll deductions of up to 10% of each participating employee's gross wages. The Company issued 13,156 shares for 2017 (issued in 2018), 17,874 shares in 2016, and 13,573 shares in 2015 of its common stock under this plan.

**401(k) Savings and Other Defined Contribution Plans**

The Company's U.S. subsidiaries participate in the Kadant Inc. 401(k) Retirement Savings Plan sponsored by the Company. Contributions to the plan are made by both the employee and the Company and are immediately vested. Company contributions are based upon the level of employee contributions.

Certain of the Company's subsidiaries offer other retirement plans, the majority of which are defined contribution plans. Company contributions to these plans are based on formulas determined by the Company.

For these plans, the Company contributed and charged to expense approximately \$3,327,000 in 2017, \$3,005,000 in 2016, and \$2,749,000 in 2015.

**Pension and Other Post-Retirement Benefits Plans**

The Company sponsors a noncontributory defined benefit pension plan, which is closed to new participants, for eligible employees at one of its U.S. divisions and its corporate office. Certain of the Company's non-U.S. subsidiaries also sponsor defined benefit pension plans covering certain employees at those subsidiaries. Funds for the U.S. pension plan and one of the non-U.S. pension plans are contributed to a trustee as necessary to provide for current service and for any unfunded projected benefit obligation over a reasonable period. The remaining non-U.S. pension plans are unfunded as permitted under their plans and applicable laws. Benefits under the Company's pension plans are based on years of service and employee compensation.

The Company also provides other post-retirement benefits under plans in the United States and at one of its non-U.S. subsidiaries. In addition, the Company provides for a restoration plan for certain executive officers which fully supplements benefits lost under the noncontributory defined benefit retirement plan as a consequence of applicable Internal Revenue Service limits and restores benefits for the limitation of years of service under the retirement plan.

In accordance with ASC 715, "Compensation-Retirement Benefits," (ASC 715), the Company recognizes the funded status of its defined benefit pension and other post-retirement benefit plans as an asset or liability and changes in the funded status through AOCI, net of tax. The amounts in AOCI will be subsequently recognized as net periodic pension cost pursuant to the Company's historical accounting policy for amortizing such amounts. Further, actuarial gains and losses that arise in subsequent periods and are not recognized as net periodic pension cost in the same periods will be recognized as a component of AOCI, net of tax. The actuarial loss and prior service loss included in AOCI and expected to be recognized in net periodic benefit cost in 2018 are \$665,000 and \$93,000, respectively.

The following table summarizes the change in benefit obligation; the change in plan assets; the unfunded status; and the amounts recognized in the accompanying consolidated balance sheet for the Company's U.S. and non-U.S. pension benefit plans and other post-retirement benefit plans. In accordance with ASU No. 2015-04, *Compensation - Retirement Benefits (Topic 715)*, the Company elects to measure its plan assets and benefit obligations as of December 31.

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

(In thousands)	U.S. Pension		Non-U.S. Pension		Other Post-Retirement	
	December 30, 2017	December 31, 2016	December 30, 2017	December 31, 2016	December 30, 2017	December 31, 2016
<b>Change in Projected Benefit Obligation:</b>						
Projected benefit obligation at beginning of year .....	\$ 31,935	\$ 31,310	\$ 3,341	\$ 3,041	\$ 3,894	\$ 3,539
Acquisitions .....	—	—	241	380	—	—
Service cost .....	685	723	148	102	175	130
Interest cost .....	1,231	1,273	114	107	170	156
Actuarial loss .....	2,626	575	270	58	635	686
Benefits paid .....	(1,720)	(1,946)	(265)	(63)	(175)	(180)
Settlement payment .....	—	—	—	—	—	(415)
Currency translation .....	—	—	421	(284)	5	(22)
Projected benefit obligation at end of year .....	<u>\$ 34,757</u>	<u>\$ 31,935</u>	<u>\$ 4,270</u>	<u>\$ 3,341</u>	<u>\$ 4,704</u>	<u>\$ 3,894</u>
<b>Change in Plan Assets:</b>						
Fair value of plan assets at beginning of year .....	\$ 28,985	\$ 27,776	\$ 426	\$ 396	\$ 28	\$ 26
Actual return on plan assets .....	3,409	2,075	23	6	1	1
Employer contributions .....	1,080	1,080	355	159	179	601
Benefits paid .....	(1,720)	(1,946)	(265)	(63)	(175)	(180)
Settlement payment .....	—	—	—	—	—	(415)
Currency translation .....	—	—	18	(72)	2	(5)
Fair value of plan assets at end of year .....	<u>\$ 31,754</u>	<u>\$ 28,985</u>	<u>\$ 557</u>	<u>\$ 426</u>	<u>\$ 35</u>	<u>\$ 28</u>
Unfunded Status .....	<u>\$ (3,003)</u>	<u>\$ (2,950)</u>	<u>\$ (3,713)</u>	<u>\$ (2,915)</u>	<u>\$ (4,669)</u>	<u>\$ (3,866)</u>
Accumulated Benefit Obligation at End of Year .....	<u>\$ 30,311</u>	<u>\$ 27,573</u>	<u>\$ 3,047</u>	<u>\$ 2,549</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Amounts Included in the Balance Sheet:</b>						
Current liability .....	\$ —	\$ —	\$ (205)	\$ (194)	\$ (173)	\$ (183)
Non-current liability .....	\$ (3,003)	\$ (2,950)	\$ (3,508)	\$ (2,721)	\$ (4,496)	\$ (3,683)
<b>Amounts Included in Accumulated Other Comprehensive Items Before Tax:</b>						
Unrecognized net actuarial loss .....	\$ (7,485)	\$ (7,383)	\$ (1,085)	\$ (784)	\$ (1,424)	\$ (872)
Unrecognized prior service cost .....	—	(53)	(52)	(42)	(439)	(525)
	<u>\$ (7,485)</u>	<u>\$ (7,436)</u>	<u>\$ (1,137)</u>	<u>\$ (826)</u>	<u>\$ (1,863)</u>	<u>\$ (1,397)</u>
<b>Changes in Amounts Included in Accumulated Other Comprehensive Items Before Tax:</b>						
Current year net actuarial (loss) gain .....	\$ (544)	\$ 213	\$ (277)	\$ (75)	\$ (634)	\$ (685)
Amortization of prior service cost .....	53	55	6	4	88	88
Amortization of net actuarial loss .....	442	498	38	39	83	50
Settlement loss .....	—	—	—	—	—	114
Currency translation .....	—	—	(78)	85	(3)	(29)
	<u>\$ (49)</u>	<u>\$ 766</u>	<u>\$ (311)</u>	<u>\$ 53</u>	<u>\$ (466)</u>	<u>\$ (462)</u>

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

The weighted-average assumptions used to determine the benefit obligation are as follows:

	U.S. Pension		Non-U.S. Pension		Other Post-Retirement	
	December 30, 2017	December 31, 2016	December 30, 2017	December 31, 2016	December 30, 2017	December 31, 2016
Discount rate .....	3.51%	4.03%	3.16%	3.26%	3.71%	4.20%
Rate of compensation increase.....	3.00%	3.00%	3.33%	3.33%	3.11%	3.12%

The discount rates for pension and other post-retirement plans are based on market yields on high-quality corporate bonds currently available and expected to be available during the period to maturity of the benefits. For pension and post-retirement plans that have been closed to new participants thereby shortening the duration, the discount rate is determined based on discounting the projected benefit streams against the Citigroup Pension discount curve.

The projected benefit obligations and fair values of plan assets for the Company's pension plans with projected benefit obligations in excess of plan assets are as follows:

(In thousands)	U.S. Pension		Non-U.S. Pension	
	December 30, 2017	December 31, 2016	December 30, 2017	December 31, 2016
Pension Plans with Projected Benefit Obligations in Excess of Plan Assets:				
Projected benefit obligation .....	\$ 34,757	\$ 31,935	\$ 4,270	\$ 3,341
Fair value of plan assets .....	\$ 31,754	\$ 28,985	\$ 557	\$ 426

The accumulated benefit obligations and fair values of plan assets for the Company's pension plans with accumulated benefit obligations in excess of plan assets are as follows:

(In thousands)	U.S. Pension		Non-U.S. Pension	
	December 30, 2017	December 31, 2016	December 30, 2017	December 31, 2016
Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets:				
Accumulated benefit obligation .....	\$ —	\$ —	\$ 3,047	\$ 2,549
Fair value of plan assets .....	\$ —	\$ —	\$ 557	\$ 426

The components of net periodic benefit cost are as follows:

(In thousands)	U.S. Pension			Non-U.S. Pension			Other Post-Retirement		
	December 30, 2017	December 31, 2016	January 2, 2016	December 30, 2017	December 31, 2016	January 2, 2016	December 30, 2017	December 31, 2016	January 2, 2016
Service cost .....	\$ 685	\$ 723	\$ 842	\$ 148	\$ 102	\$ 105	\$ 175	\$ 130	\$ 117
Interest cost .....	1,231	1,273	1,229	114	107	102	170	156	147
Expected return on plan assets.....	(1,326)	(1,288)	(1,421)	(25)	(25)	(40)	(2)	(2)	(2)
Amortization of net actuarial loss .....	442	498	508	38	39	38	83	50	30
Amortization of prior service cost .....	53	55	55	6	4	4	88	88	88
Settlement loss.....	—	—	—	—	—	—	—	114	—
	<u>\$ 1,085</u>	<u>\$ 1,261</u>	<u>\$ 1,213</u>	<u>\$ 281</u>	<u>\$ 227</u>	<u>\$ 209</u>	<u>\$ 514</u>	<u>\$ 536</u>	<u>\$ 380</u>

## Notes to Consolidated Financial Statements

## 3. Employee Benefit Plans (continued)

The weighted-average assumptions used to determine net periodic benefit cost are as follows:

	U.S. Pension			Non-U.S. Pension			Other Post-Retirement		
	December 30, 2017	December 31, 2016	January 2, 2016	December 30, 2017	December 31, 2016	January 2, 2016	December 30, 2017	December 31, 2016	January 2, 2016
Discount Rate.....	4.03%	4.22%	3.87%	3.45%	3.87%	3.33%	4.10%	4.28%	4.01%
Expected Long-Term Return on Plan Assets.....	5.00%	5.00%	5.25%	7.53%	7.72%	6.90%	7.53%	7.72%	6.90%
Rate of Compensation Increase.....	3.00%	3.00%	3.00%	3.65%	3.67%	3.42%	3.08%	3.05%	3.15%

In developing the overall expected long-term return on plan assets assumption, a building block approach was used in which rates of return in excess of inflation were considered separately for equity securities, debt securities, and other assets. The excess returns were weighted by the representative target allocation and added along with an appropriate rate of inflation to develop the overall expected long-term return on plan assets assumption. The Company believes this determination is consistent with ASC 715.

## Plan Assets

The fair values of the Company's noncontributory defined benefit retirement plan assets at year-end 2017 and year-end 2016 by asset category are as follows:

(In thousands)	December 30, 2017 Fair Value Measurement			
	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
U.S. Pension Plan Assets:				
Mutual Funds .....	\$ 22,323	\$ —	\$ —	\$ 22,323
Investments measured at NAV.....				9,431
Total assets at fair value.....				<u>\$ 31,754</u>
Non-U.S. Pension Plan Assets:				
Mutual Funds .....	\$ 557	\$ —	\$ —	\$ 557
Total assets at fair value.....				<u>\$ 557</u>
(In thousands)	December 31, 2016 Fair Value Measurement			
	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
U.S. Pension Plan Assets:				
Mutual Funds .....	\$ 20,318	\$ —	\$ —	\$ 20,318
Investments measured at NAV.....				8,667
Total assets at fair value.....				<u>\$ 28,985</u>
Non-U.S. Pension Plan Assets:				
Mutual Funds .....	\$ 426	\$ —	\$ —	\$ 426
Total assets at fair value.....				<u>\$ 426</u>

## Notes to Consolidated Financial Statements

**3. Employee Benefit Plans (continued)**Description of Fair Value Measurements

Level 1 – Quoted, active market prices for identical assets.

Level 2 – Observable inputs other than Level 1 prices, based on model-derived valuations in which all significant inputs are observable in active markets.

Level 3 – Unobservable inputs based on the Company's own assumptions.

The following is a description of the valuation methodologies used for assets measured at fair value. There were no changes in valuation techniques during 2017 or 2016.

*Mutual funds* - Investments in common stock index and fixed income funds. Share prices of the funds, referred to as a fund's Net Asset Value (NAV), are calculated daily based on the closing market prices and accruals of securities in the fund's total portfolio (total value of the fund) divided by the number of fund shares currently issued and outstanding. There are no redemption restrictions.

*Investments measured at NAV* - Investments in common collective trusts that invest in a diversified blend of investment and non-investment grade fixed income securities and are valued at NAV provided by the fund administrator. The NAV is used as the practical expedient to estimate fair value. The NAVs of the funds are calculated monthly based on the closing market prices and accruals of securities in the fund's total portfolio (total value of the fund) divided by the number of fund shares currently issued and outstanding. Redemptions of the investments occur by contract at the respective fund's redemption date NAV.

The Company has developed an investment policy for its U.S. noncontributory defined benefit retirement plan. The investment strategy is to emphasize total return, that is, the aggregate return from capital appreciation and dividend and interest income. The primary objective of the investment management for the plan's assets is the emphasis on consistent growth; specifically, growth in a manner that protects the plan's assets from excessive volatility in market value from year to year. The investment policy takes into consideration the benefit obligations, including timing of distributions.

The following target asset allocation has been established for the plan:

Asset Category	Minimum	Neutral	Maximum
Equity Securities .....	5%	15%	20%
Debt Securities .....	80%	85%	95%
Total .....		100%	

All equity securities must be drawn from recognized securities exchanges. Debt securities must be weighted to reflect a portfolio average maturity of not more than ten years, with average benchmark duration of five years. The credit quality must equal or exceed high investment grade quality ("Baa" or better).

**Cash Flows***Contributions*

The Company does not plan to make any material cash contributions to its pension and post-retirement benefit plans in 2018 other than to fund current benefit payments.



## Notes to Consolidated Financial Statements

**3. Employee Benefit Plans (continued)***Estimated Future Benefit Payments*

Expected benefit payments are based on the same assumptions used to measure the Company's benefit obligation at year-end 2017. Estimated future benefit payments during the next five years and in aggregate for the five years thereafter are as follows:

(In thousands)	U.S. Pension	Non-U.S. Pension	Other Post- retirement
2018.....	\$ 1,500	\$ 282	\$ 179
2019.....	1,507	159	166
2020.....	4,402	139	332
2021.....	1,960	284	151
2022.....	1,606	370	155
2023-2027 .....	12,606	2,337	3,707

**4. Stockholders' Equity****Preferred Stock**

The Company's Certificate of Incorporation authorizes up to 5,000,000 shares of preferred stock, \$.01 par value per share, for issuance by the Company's board of directors without further shareholder approval.

**Common Stock**

At year-end 2017, the Company reserved 1,044,954 unissued shares of its common stock for possible issuance under its stock-based compensation plans.

**5. Income Taxes**

The Tax Cuts and Jobs Act of 2017 (2017 Tax Act) was signed into law on December 22, 2017 and is generally effective for tax years beginning January 1, 2018. The most significant impacts of the 2017 Tax Act to the Company include a decrease in the federal corporate income tax rate from 35% to 21%, and a one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings. For 2017, the Company recorded a provisional net income tax expense of \$7,487,000, including the impact of state taxes, which consists of a provisional amount for our one-time mandatory transition tax of \$10,303,000, partially offset by a provisional net tax benefit of \$2,816,000 for the re-measurement of our deferred income tax assets and liabilities due to the decrease in the federal corporate income tax rate. The Company anticipates offsetting the one-time mandatory transition tax against existing tax attributes, which will reduce the required federal payment to approximately \$4,599,000 over the elected eight-year payment period.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) related to the income tax accounting implications of the 2017 Tax Act, which provides guidance on accounting for the 2017 Tax Act's impact. SAB 118 provides a measurement period, which in no case should extend beyond one year from the 2017 Tax Act enactment date, during which a company acting in good faith may complete the accounting for the impacts of the 2017 Tax Act under ASC Topic 740. In accordance with SAB 118, a company must reflect the income tax effects of the 2017 Tax Act in the reporting period in which the accounting under ASC Topic 740 is complete. To the extent that a company's accounting for certain income tax effects of the 2017 Tax Act is incomplete, a company can determine a reasonable estimate for those effects and record a provisional estimate in the financial statements in the first reporting period in which a reasonable estimate can be determined. In accordance with SAB 118, the Company has recognized the provisional tax impacts, outlined above, related to the re-measurement of our deferred income tax assets and liabilities and the one-time mandatory transition tax on deemed repatriation of unremitted foreign earnings. The ultimate impact may differ from the provisional amounts, due to, among other things, the significant complexity of the 2017 Tax Act and anticipated additional regulatory guidance that may be issued by the Internal Revenue Service, changes in analysis, interpretations and assumptions the Company has made and actions the Company may take as a result of the 2017 Tax Act.

While the 2017 Tax Act provides for a territorial tax system, beginning in 2018, it includes two new U.S. tax base erosion provisions, Global Intangible Low-Taxed Income (GILTI) and Base Erosion Anti-Abuse Tax (BEAT). The Company has elected to account for any potential GILTI tax in the period in which it is incurred, and therefore has not provided any

## Notes to Consolidated Financial Statements

## 5. Income Taxes (continued)

deferred income tax impacts of GILTI in its consolidated financial statements for 2017. In addition, the Company does not expect to be subject to the minimum tax pursuant to the BEAT provisions.

The components of income from continuing operations before provision for income taxes are as follows:

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
Domestic .....	\$ 2,797	\$ 6,196	\$ 13,076
Foreign .....	54,856	38,353	36,295
	<u>\$ 57,653</u>	<u>\$ 44,549</u>	<u>\$ 49,371</u>

The components of the provision for income taxes from continuing operations are as follows:

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
Current Provision:			
Federal .....	\$ 7,835	\$ 535	\$ 4,693
Foreign .....	17,372	11,323	10,623
State .....	285	838	1,152
	<u>25,492</u>	<u>12,696</u>	<u>16,468</u>
Deferred Provision (Benefit):			
Federal .....	4,682	1,738	45
Foreign .....	(3,563)	(1,818)	(1,378)
State .....	(541)	(533)	(373)
	<u>578</u>	<u>(613)</u>	<u>(1,706)</u>
	<u>\$ 26,070</u>	<u>\$ 12,083</u>	<u>\$ 14,762</u>

The provision for income taxes included in the accompanying consolidated statement of income is as follows:

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
Continuing Operations .....	\$ 26,070	\$ 12,083	\$ 14,762
Discontinued Operation .....	—	2	43
	<u>\$ 26,070</u>	<u>\$ 12,085</u>	<u>\$ 14,805</u>

The Company receives a tax deduction upon the exercise of nonqualified stock options and the vesting of RSUs. The current provision for income taxes in the accompanying consolidated statement of income does not reflect \$881,000 in 2015 of such excess tax benefits, from the exercise of stock options and vesting of RSUs. In 2016, the Company adopted ASU No. 2016-09, *Compensation – Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting*. This ASU requires that excess income tax benefits and tax deficiencies related to stock-based compensation arrangements be recognized as discrete items within the provision for income taxes instead of capital in excess of par value in the reporting period in which they occur. The Company recognized an income tax benefit of \$608,000 in 2017 and \$582,000 in 2016 in the Company's accompanying consolidated statement of income.

The provision for income taxes from continuing operations in the accompanying statement of income differs from the provision calculated by applying the statutory federal income tax rate of 35% to income from continuing operations before provision for income taxes due to the following:

## Notes to Consolidated Financial Statements

## 5. Income Taxes (continued)

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
Provision for Income Taxes at Statutory Rate .....	\$ 20,179	\$ 15,592	\$ 17,279
Increases (Decreases) Resulting From:			
State income taxes, net of federal tax .....	151	189	506
U.S. tax cost of foreign earnings .....	761	192	455
Foreign tax rate differential .....	(3,747)	(3,921)	(3,852)
Provision for (reversal of) tax benefit reserves, net .....	1,517	(76)	33
Change in valuation allowance .....	(341)	(131)	99
Nondeductible expenses .....	1,177	1,090	704
Research and development tax credits .....	(297)	(229)	(210)
Excess tax benefit related to share-based compensation .....	(581)	(553)	—
Impact of the U.S. Tax Cuts and Jobs Act .....	7,093	—	—
Other .....	158	(70)	(252)
	<u>\$ 26,070</u>	<u>\$ 12,083</u>	<u>\$ 14,762</u>

Net deferred tax liability in the accompanying consolidated balance sheet consists of the following:

(In thousands)	December 30, 2017	December 31, 2016
Deferred Tax Asset:		
Foreign, state, and alternative minimum tax credit carryforwards .....	\$ 185	\$ 161
Reserves and accruals .....	4,455	4,842
Net operating loss carryforwards .....	15,161	13,694
Inventory basis difference .....	3,265	3,005
Research and development .....	88	75
Employee compensation .....	2,610	4,966
Allowance for doubtful accounts .....	505	488
Revenue recognition .....	—	636
Other .....	59	249
Deferred tax asset, gross .....	<u>26,328</u>	<u>28,116</u>
Less: valuation allowance .....	(10,835)	(10,863)
Deferred tax asset, net .....	<u>15,493</u>	<u>17,253</u>
Deferred Tax Liability:		
Goodwill and intangible assets .....	(32,120)	(21,853)
Fixed asset basis difference .....	(4,213)	(4,325)
Provision for unremitted foreign earnings .....	(2,718)	—
Other .....	(554)	(1,199)
Deferred tax liability .....	<u>(39,605)</u>	<u>(27,377)</u>
Net deferred tax liability .....	<u>\$ (24,112)</u>	<u>\$ (10,124)</u>

The Company has established valuation allowances related to certain domestic and foreign deferred tax assets on deductible temporary differences, tax losses, and tax credit carryforwards. The valuation allowance at year-end 2017 was \$10,835,000, consisting of \$506,000 in the United States and \$10,329,000 in foreign jurisdictions. The decrease in the valuation allowance in 2017 of \$28,000 related primarily to fluctuations in foreign currency exchange rates, tax rate changes, and expected future utilization of net operating losses in certain state and foreign jurisdictions. Compliance with ASC 740 requires the Company to periodically evaluate the necessity of establishing or adjusting a valuation allowance for deferred tax assets depending on whether it is more likely than not that a related tax benefit will be realized in future periods. When assessing the need for a valuation allowance in a tax jurisdiction, the Company evaluates the weight of all available evidence to determine whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. As part of this evaluation, the Company considers its cumulative three-year history of earnings before income taxes, taxable income in prior carryback years, future reversals of existing taxable temporary differences, prudent and feasible tax planning strategies, and expected future results of operations. As of year-end 2017, the Company continued to maintain a valuation allowance in the United States against a portion of its state net operating loss carryforwards due to the uncertainty of future profitability in state jurisdictions. As of year-end 2017, the Company maintained valuation allowances in certain foreign jurisdictions because of the uncertainty of future profitability.

## Notes to Consolidated Financial Statements

## 5. Income Taxes (continued)

At year-end 2017, the Company had domestic state net operating loss carryforwards of \$32,879,000 and foreign net operating loss carryforwards of \$52,813,000. The domestic state net operating loss carryforwards will expire in the years 2018 through 2037. Their utilization is limited to future taxable income from the Company's domestic subsidiaries. The foreign net operating loss carryforwards do not expire.

At year-end 2017, the Company had approximately \$245,640,000 of unremitted foreign earnings. The Company intends to repatriate the distributable reserves of select foreign subsidiaries back to the United States and has recognized \$2,718,000 of tax expense on the estimated repatriation amount in the fourth quarter of 2017. Except for these select foreign subsidiaries, the Company intends to reinvest indefinitely the earnings of its international subsidiaries in order to support the current and future capital needs of their operations in the foreign jurisdictions, including the repayment of the Company's foreign debt. The related foreign tax withholding, which would be required if the Company were to remit these foreign earnings to the United States, would be approximately \$3,740,000.

The Company operates within multiple tax jurisdictions and could be subject to audit in those jurisdictions. Such audits can involve complex income tax issues, which may require an extended period of time to resolve and may cover multiple years. In management's opinion, adequate provisions for income taxes have been made for all years subject to audit.

As of year-end 2017, the Company had \$7,843,000 of unrecognized tax benefits which, if recognized, would reduce the effective tax rate. A reconciliation of the beginning and ending amount of unrecognized tax benefits at year-end 2017 and year-end 2016 is as follows:

<b>(In thousands)</b>	<b>December 30, 2017</b>	<b>December 31, 2016</b>
Unrecognized Tax Benefits, Beginning of Year .....	\$ 5,467	\$ 5,052
Gross Increases—Tax Positions in Prior Periods .....	4	403
Gross Decreases—Tax Positions in Prior Periods .....	(22)	(23)
Gross Increases—Current-period Tax Positions .....	2,229	480
Lapses of Statutes of Limitations .....	(11)	(359)
Currency Translation .....	176	(86)
Unrecognized Tax Benefits, End of Year .....	<u>\$ 7,843</u>	<u>\$ 5,467</u>

The Company recognizes accrued interest and penalties related to unrecognized tax benefits in the provision for income taxes. The Company has accrued \$1,523,000 at year-end 2017 and \$1,321,000 at year-end 2016 for the potential payment of interest and penalties. The interest and penalties included in the accompanying consolidated statement of income was an expense of \$199,000 in 2017 and \$69,000 in 2016.

The Company is currently under audit in certain non-U.S. taxing jurisdictions. It is reasonably possible that over the next fiscal year the amount of liability for unrecognized tax benefits may be reduced by up to \$1,585,000 primarily from the expiration of tax statutes of limitations.

The Company remains subject to U.S. Federal income tax examinations for the tax years 2008 through 2017, and to non-U.S. income tax examinations for the tax years 2004 through 2017. In addition, the Company remains subject to state and local income tax examinations in the United States for the tax years 2001 through 2017.

## 6. Long-Term Obligations

Long-term obligations at year-end 2017 and year-end 2016 are as follows:

<b>(In thousands)</b>	<b>December 30, 2017</b>	<b>December 31, 2016</b>
Revolving Credit Facility, due 2022 .....	\$ 237,011	\$ 61,494
Obligations Under Capital Lease, due 2018 to 2022 .....	4,633	4,309
Other Borrowings, due 2018 to 2023 .....	436	608
Total .....	242,080	66,411
Less: Current Maturities of Long-Term Obligations .....	(696)	(643)
Long-Term Obligations .....	<u>\$ 241,384</u>	<u>\$ 65,768</u>

See Note 10 for the fair value information related to the Company's long-term obligations.

## Notes to Consolidated Financial Statements

**6. Long-Term Obligations (continued)***Revolving Credit Facility*

On March 1, 2017, the Company entered into an Amended and Restated Credit Agreement (as amended, the 2017 Credit Agreement) that became effective on March 2, 2017, which is a five-year unsecured multi-currency revolving credit facility in the aggregate principal amount of up to \$200,000,000. On May 24, 2017, the Company entered into a first amendment and limited consent, which increased the revolving loan commitment to \$300,000,000. The 2017 Credit Agreement also includes an uncommitted unsecured incremental borrowing facility of up to an additional \$100,000,000. The principal on any borrowings made under the 2017 Credit Agreement is due on March 1, 2022. Borrowing may be denominated in U.S. dollars or certain foreign currencies, as defined in the 2017 Credit Agreement. Interest on any loans outstanding under the 2017 Credit Agreement accrues and generally is payable quarterly in arrears at one of the following rates selected by the Company: (i) the Base Rate, calculated as the highest of (a) the federal funds rate plus 0.50% (b) the prime rate as published by Citizens Bank, and (c) the thirty-day London Inter-Bank Offered Rate (LIBOR) rate, as defined, plus 0.50%; or (ii) the LIBOR rate (with a zero percent floor), as defined, plus an applicable margin of 1% to 2%. The applicable margin is determined based upon the ratio of the Company's total debt, net of certain cash, as defined, to earnings before interest, taxes, depreciation, and amortization (EBITDA), as defined in the 2017 Credit Agreement. For this purpose, total debt net of certain cash is defined as total debt less the sum of (i) unrestricted U.S. cash, and (ii) 65% of unrestricted cash outside of the United States, but no more than an aggregate amount of \$30,000,000.

The obligations of the Company under the 2017 Credit Agreement may be accelerated upon the occurrence of an event of default under the 2017 Credit Agreement, which includes customary events of default including, without limitation, payment defaults, defaults in the performance of affirmative and negative covenants, the inaccuracy of representations or warranties, bankruptcy- and insolvency-related defaults, defaults relating to such matters as the Employment Retirement Income Security Act (ERISA), unsatisfied judgments, the failure to pay certain indebtedness, and a change of control default. In addition, the 2017 Credit Agreement contains negative covenants applicable to the Company and its subsidiaries, including financial covenants requiring the Company to comply with a maximum consolidated leverage ratio of 3.5 to 1, a minimum consolidated interest coverage ratio of 3 to 1, and restrictions on liens, indebtedness, fundamental changes, dispositions of property, making certain restricted payments (including dividends and stock repurchases), investments, transactions with affiliates, sale and leaseback transactions, swap agreements, changing its fiscal year, arrangements affecting subsidiary distributions, entering into new lines of business, and certain actions related to a discontinued operation. At year-end 2017, the Company was in compliance with these covenants.

Loans under the 2017 Credit Agreement are guaranteed by certain domestic subsidiaries of the Company pursuant to an Amended and Restated Guarantee Agreement, dated as of March 1, 2017. In addition, one of the Company's foreign subsidiaries entered into a Guarantee Agreement limited to certain obligations of two foreign subsidiary borrowers pursuant to a Guarantee Agreement dated as of March 1, 2017.

During 2017, the Company borrowed an aggregate \$232,019,000 under the 2017 Credit Agreement, including \$70,691,000 of Canadian dollar-denominated and \$61,769,000 of euro-denominated borrowings. At year-end 2017, the outstanding balance under the 2017 Credit Agreement was \$237,011,000, including \$58,692,000 of euro-denominated and \$58,319,000 of Canadian dollar-denominated borrowings and had \$64,030,000 of borrowing capacity available under its 2017 Credit Agreement, as calculated by translating its foreign-denominated borrowings using borrowing date foreign exchange rates.

The weighted average interest rate for the revolving credit facility was 2.69% at year-end 2017 and 1.52% at year-end 2016.

*Debt Issuance Costs*

During 2017, the Company incurred an additional \$1,257,000 of debt issuance costs related to the 2017 Credit Agreement. Unamortized debt issuance costs, included in other assets in the accompanying consolidated balance sheet, were \$1,285,000 at year-end 2017 and \$266,000 at year-end 2016 and are being amortized to interest expense using the straight-line method.

*Obligations Under Capital Lease*

The Company's obligations under capital leases include a sale-leaseback financing arrangement for PAAL's facility in Germany. Under this arrangement, the quarterly lease payment includes principal, interest, and a payment to the landlord toward a loan receivable. The loan receivable, which is included in other assets in the accompanying consolidated balance sheet, was \$490,000 at year-end 2017. The lease arrangement provides for a fixed price purchase option, net of the projected loan receivable, of \$1,594,000 at the end of the lease term in 2022. If the Company does not exercise the purchase option for

## Notes to Consolidated Financial Statements

**6. Long-Term Obligations (continued)**

the facility, the Company will receive cash from the landlord to settle the loan receivable. As of year-end 2017, \$4,535,000 was outstanding under this capital lease obligation with an interest rate of 1.79% on the outstanding balance and \$98,000 related to other capital lease obligations.

The following schedule presents future minimum lease payments under the Company's capital lease obligations and the present value of the minimum lease payments as of year-end 2017.

(In thousands)	Capital Lease Obligations
2018.....	\$ 604
2019.....	597
2020.....	605
2021.....	567
2022.....	915
Total Minimum Lease Payments.....	<u>\$ 3,288</u>
Less: Imputed Interest.....	(249)
Present Value of Minimum Lease Payments.....	<u><u>\$ 3,039</u></u>

**7. Commitments and Contingencies****Operating Leases**

The Company occupies office and operating facilities under various operating leases. The accompanying consolidated statement of income includes expenses from operating leases of \$4,955,000 in 2017, \$4,298,000 in 2016, and \$3,797,000 in 2015. The future minimum payments due under noncancelable operating leases at year-end 2017 are \$3,470,000 in 2018; \$2,251,000 in 2019; \$1,584,000 in 2020; \$1,197,000 in 2021; \$1,105,000 in 2022 and \$1,994,000 thereafter. Total future minimum lease payments are \$11,601,000.

**Letters of Credit and Bank Guarantees**

Outstanding letters of credit and bank guarantees issued on behalf of the Company, principally relating to performance obligations and customer deposit guarantees, totaled \$21,021,000 at year-end 2017. Certain of the Company's contracts, particularly for stock-preparation and systems orders, require the Company to provide a standby letter of credit or bank guarantee to a customer as beneficiary, limited in amount to a negotiated percentage of the total contract value, in order to guarantee warranty and performance obligations of the Company under the contract. Typically, these standby letters of credit and bank guarantees expire without being drawn by the beneficiary.

**Right of Recourse**

In the ordinary course of business, the Company's subsidiaries in China may receive banker's acceptance drafts from customers as payment for their trade accounts receivable. The banker's acceptance drafts are noninterest-bearing obligations of the issuing bank and mature within six months of the origination date. The Company's subsidiaries in China may use these banker's acceptance drafts prior to the scheduled maturity date to settle outstanding accounts payable with vendors. Banker's acceptance drafts transferred to vendors are subject to customary right of recourse provisions prior to their scheduled maturity dates. The Company had \$10,035,000 at year-end 2017 and \$4,824,000 at year-end 2016 of banker's acceptance drafts subject to recourse, which were transferred to vendors and had not reached their scheduled maturity dates. Historically, the banker's acceptance drafts have settled upon maturity without any claim of recourse against the Company.

**Contingencies**

In the ordinary course of business, the Company is, at times, required to issue limited performance guarantees, some of which do not require the issuance of letters of credit to customers in support of these guarantees, relating to its equipment and systems. The Company generally limits its liability under these guarantees to amounts typically capped at 10% or less of the value of the contract. The Company believes that it has adequate reserves for any potential liability in connection with such guarantees.

## Notes to Consolidated Financial Statements

## 7. Commitments and Contingencies (continued)

## Litigation

From time to time, the Company is subject to various claims and legal proceedings covering a range of matters that arise in the ordinary course of business. Such litigation may include, but is not limited to, claims and counterclaims by and against the Company for breach of contract or warranty, canceled contracts, product liability, or bankruptcy-related claims. For legal proceedings in which a loss is probable and estimable, the Company accrues a loss based on the low end of the range of estimated loss when there is no better estimate within the range. If the Company were found to be liable for any of the claims or counterclaims against it, the Company would incur a charge against earnings for amounts in excess of legal accruals.

## 8. Restructuring Costs and Other Income

## Restructuring Costs

In 2017, the Company recorded restructuring costs of \$203,000 associated with severance costs for the reduction of four employees in the United States and six employees in Sweden in the Papermaking Systems segment. In 2017, the Company constructed a 160,000 square foot manufacturing facility in the United States and will integrate its U.S. and Swedish stock-preparation product lines into a single manufacturing facility to achieve economies of scale and greater efficiencies. The Company has identified other restructuring actions related to this plan, such as the relocation of machinery and equipment, severance and abandonment of leased facilities, which will result in additional charges of approximately \$1,708,000 that will be recorded in 2018 when specified criteria are met.

In 2015, the Company recorded restructuring costs of \$515,000, including \$344,000 related to its 2015 restructuring plans, and an additional charge of \$171,000 related to its 2014 restructuring plans. The 2015 charges related to severance costs associated with the reduction of 25 employees in Canada and Brazil. The 2014 charges related to severance costs associated with the reduction of four employees in Sweden. These actions were taken to further streamline operations related to previous restructuring actions in its Papermaking Systems Segment.

A summary of the changes in accrued restructuring costs included in other accrued expenses in the accompanying consolidated balance sheet are as follows:

<u>(In thousands)</u>	<u>Severance Costs</u>
<b>2017 Restructuring Plan</b>	
Provision .....	\$ 203
Balance at December 30, 2017 .....	<u>\$ 203</u>
<b>2015 Restructuring Plans</b>	
Provision .....	\$ 344
Usage .....	(323)
Currency translation .....	(21)
Balance at January 2, 2016 .....	<u>\$ —</u>
<b>2014 Restructuring Plans</b>	
Balance at January 3, 2015 .....	\$ 47
Provision .....	171
Usage .....	(214)
Currency translation .....	(4)
Balance at January 2, 2016 .....	<u>\$ —</u>

## Other Income

In 2016, other income consisted of a pre-tax gain of \$317,000 from the sale of real estate in Sweden for cash proceeds of \$368,000.

## Notes to Consolidated Financial Statements

**9. Derivatives***Interest Rate Swap Agreement*

On January 16, 2015, the Company entered into a swap agreement (2015 Swap Agreement) to hedge its exposure to movements in the three-month LIBOR rate on future outstanding debt and has designated the 2015 Swap Agreement as a cash flow hedge. The 2015 Swap Agreement expires on March 27, 2020 and has a \$10,000,000 notional value. Under the 2015 Swap Agreement, on a quarterly basis, the Company receives a three-month LIBOR rate and pays a fixed rate of interest of 1.50% plus an applicable margin. The fair value of the 2015 Swap Agreement at year-end 2017 is included in other assets, with an offset to AOCI, net of tax, in the accompanying consolidated balance sheet.

The Company has structured the 2015 Swap Agreement to be 100% effective and as a result there is no current impact to earnings resulting from hedge ineffectiveness. Management believes that any credit risk associated with the 2015 Swap Agreement is remote based on the Company's financial position and the creditworthiness of the financial institution that issued the 2015 Swap Agreement.

The counterparty to the 2015 Swap Agreement could demand an early termination of the 2015 Swap Agreement if the Company were to be in default under the 2017 Credit Agreement, or any agreement that amends or replaces the 2017 Credit Agreement in which the counterparty is a member, and if the Company were to be unable to cure the default. An event of default under the 2017 Credit Agreement includes customary events of default and failure to comply with financial covenants, including a maximum consolidated leverage ratio of 3.5 to 1, a minimum consolidated interest coverage ratio of 3 to 1, and restrictions on liens, indebtedness, fundamental changes, dispositions of property, making certain restricted payments (including dividends and stock repurchases), investments, transactions with affiliates, sale and leaseback transactions, swap agreements, changing its fiscal year, arrangements affecting subsidiary distributions, entering into new lines of business, and certain actions related to a discontinued operation. At year-end 2017, the Company was in compliance with these covenants. The unrealized gain associated with the 2015 Swap Agreement was \$126,000 at year-end 2017, which represents the estimated amount that the Company would receive from the counterparty in the event of an early termination.

*Forward Currency-Exchange Contracts*

The Company uses forward currency-exchange contracts primarily to hedge exposures resulting from fluctuations in currency exchange rates. Such exposures result primarily from portions of the Company's operations and assets and liabilities that are denominated in currencies other than the functional currencies of the businesses conducting the operations or holding the assets and liabilities. The Company typically manages its level of exposure to the risk of currency-exchange fluctuations by hedging a portion of its anticipated currency exposures over the ensuing 12-month period, using forward currency-exchange contracts that have maturities of twelve months or less.

Forward currency-exchange contracts that hedge forecasted accounts receivable or accounts payable are designated as cash flow hedges. The fair value for these instruments is included in other current assets for unrecognized gains and in other current liabilities for unrecognized losses, with an offset in AOCI, net of tax. For forward currency-exchange contracts that are designated as fair value hedges, the gain or loss on the derivative, as well as the offsetting loss or gain on the hedged item are recognized currently in earnings. The fair value of forward currency-exchange contracts that are not designated as hedges is recorded currently in earnings with gains reported in other current assets and losses reported in other current liabilities. The Company recognized within SG&A expenses in the accompanying consolidated statement of income losses of \$1,367,000 in 2017, \$797,000 in 2016 and \$386,000 in 2015, associated with forward currency-exchange contracts that were not designated as hedges. Management believes that any credit risk associated with forward currency-exchange contracts is remote based on the Company's financial position and the creditworthiness of the financial institutions issuing the contracts.

The following table summarizes the fair value of the Company's derivative instruments designated and not designated as hedging instruments, the notional amount of the associated derivative contracts, and the location of these instruments in the accompanying consolidated balance sheet:



## Notes to Consolidated Financial Statements

## 9. Derivatives (continued)

(In thousands)	Balance Sheet Location	December 30, 2017		December 31, 2016	
		Asset (Liability) (a)	Notional Amount (b)	Asset (Liability) (a)	Notional Amount
Derivatives Designated as Hedging Instruments:					
Derivatives in an Asset Position:					
Interest rate swap agreement .....	Other Long-Term Assets	\$ 126	\$ 10,000	\$ 62	\$ 10,000
Derivatives in a Liability Position:					
Forward currency-exchange contracts .....	Other Current Liabilities	\$ —	\$ —	\$ (41)	\$ 2,380
Derivatives Not Designated as Hedging Instruments:					
Derivatives in an Asset Position:					
Forward currency-exchange contracts .....	Other Current Assets	\$ 17	\$ 1,244	\$ 2	\$ 227
Derivatives in a Liability Position:					
Forward currency-exchange contracts .....	Other Current Liabilities	\$ (16)	\$ 2,049	\$ (237)	\$ 17,185

(a) See Note 10 for the fair value measurements relating to these financial instruments.

(b) The total notional amount is indicative of the level of the Company's derivative activity during 2017, except for the purchase of forward currency-exchange contracts entered into in the second quarter of 2017 in anticipation of consideration paid for the acquisition of NII FPG.

The following table summarizes the activity in AOCI associated with the Company's derivative instruments designated as cash flow hedges as of and for the period ended December 30, 2017:

(In thousands)	Interest Rate Swap Agreements	Forward Currency-Exchange Contracts	Total
Unrealized Gain (Loss), Net of Tax, at December 31, 2016 .....	\$ 40	\$ (28)	\$ 12
Loss reclassified to earnings (a) .....	20	64	84
Gain (loss) recognized in AOCI .....	19	(36)	(17)
Unrealized Gain, Net of Tax, at December 30, 2017 .....	<u>\$ 79</u>	<u>\$ —</u>	<u>\$ 79</u>

(a) See Note 13 for the income statement classification.

At year-end 2017, the Company expects to reclassify \$28,000 of the net unrealized gain included in AOCI to earnings over the next twelve months.

## 10. Fair Value Measurements and Fair Value of Financial Instruments

Fair value measurement is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy is established, which prioritizes the inputs used in measuring fair value into three broad levels as follows:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs, other than quoted prices in active markets, that are observable either directly or indirectly.
- Level 3—Unobservable inputs based on the Company's own assumptions.

## Notes to Consolidated Financial Statements

## 10. Fair Value Measurements and Fair Value of Financial Instruments (continued)

The following table presents the fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis:

(In thousands)	Fair Value as of December 30, 2017			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Money market funds and time deposits.....	\$ 17,728	\$ —	\$ —	\$ 17,728
Forward currency-exchange contracts .....	\$ —	\$ 17	\$ —	\$ 17
Interest rate swap agreement .....	\$ —	\$ 126	\$ —	\$ 126
Banker's acceptance drafts (a) .....	\$ —	\$ 15,960	\$ —	\$ 15,960
<b>Liabilities:</b>				
Forward currency-exchange contracts .....	\$ —	\$ 16	\$ —	\$ 16

(In thousands)	Fair Value as of December 31, 2016			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Money market funds and time deposits.....	\$ 10,855	\$ —	\$ —	\$ 10,855
Forward currency-exchange contracts .....	\$ —	\$ 2	\$ —	\$ 2
Interest rate swap agreement .....	\$ —	\$ 62	\$ —	\$ 62
Banker's acceptance drafts (a) .....	\$ —	\$ 7,852	\$ —	\$ 7,852
<b>Liabilities:</b>				
Forward currency-exchange contracts .....	\$ —	\$ 278	\$ —	\$ 278

(a) Included in accounts receivable in the accompanying consolidated balance sheet.

The Company uses the market approach technique to value its financial assets and liabilities, and there were no changes in valuation techniques during 2017. The Company's financial assets and liabilities carried at fair value are cash equivalents, banker's acceptance drafts, variable rate debt, capital lease obligations and derivative instruments used to hedge the Company's foreign currency and interest rate risks. The Company's cash equivalents are comprised of money market funds and bank deposits which are highly liquid and readily tradable. These cash equivalents are valued using inputs observable in active markets for identical securities. The carrying value of banker's acceptance drafts approximates their fair value due to the short-term nature of the negotiable instrument. The fair value of the Company's interest rate swap agreement is based on LIBOR yield curves at the reporting date. The fair values of the Company's forward currency-exchange contracts are based on quoted forward foreign exchange rates at the reporting date. The forward currency-exchange contracts and interest rate swap agreement are hedges of either recorded assets or liabilities or anticipated transactions. Changes in values of the underlying hedged assets and liabilities or anticipated transactions are not reflected in the table above.

The carrying value and fair value of the Company's long-term debt obligations are as follows:

(In thousands)	December 30, 2017		December 31, 2016	
	Carrying Value	Fair Value	Carrying Value	Fair Value
<b>Long-term Debt Obligations:</b>				
Revolving credit facility.....	\$ 237,011	\$ 237,011	\$ 61,494	\$ 61,494
Capital lease obligations.....	4,101	4,101	3,857	3,857
Other borrowings.....	272	272	417	417
	<u>\$ 241,384</u>	<u>\$ 241,384</u>	<u>\$ 65,768</u>	<u>\$ 65,768</u>

The carrying values of the Company's revolving credit facility and capital lease obligations approximate fair value as the obligations bear variable rates of interest, which adjust quarterly based on prevailing market rates.

## Notes to Consolidated Financial Statements

## 11. Business Segment and Geographical Information

The Company has combined its operating entities into two reportable operating segments, Papermaking Systems and Wood Processing Systems, and a separate product line, Fiber-based Products. In classifying operational entities into a particular segment, the Company has aggregated businesses with similar economic characteristics, products and services, production processes, customers, and methods of distribution.

The Papermaking Systems segment develops, manufactures, and markets a range of equipment and products for the global papermaking, paper recycling, recycling and waste management, and other process industries. Principal products manufactured by this segment include: custom-engineered stock-preparation systems and equipment for the preparation of wastepaper for conversion into recycled paper and balers and related equipment used in the processing of recyclable and waste materials; fluid-handling systems and equipment used in industrial piping systems to compensate for movement and to efficiently transfer fluid, power, and data; doctoring systems and equipment and related consumables important to the efficient operation of paper machines and other industrial processes; and filtration and cleaning systems essential for draining, purifying, and recycling process water and cleaning fabrics, belts, and rolls in various process industries.

The Wood Processing Systems segment develops, manufactures, and markets stranders, debarkers, chippers, and logging machinery used in the harvesting and production of lumber and OSB. This segment also provides refurbishment and repair of pulping equipment for the pulp and paper industry.

The Fiber-based Products business manufactures and sells biodegradable, absorbent granules derived from papermaking by-products for use primarily as carriers for agricultural, home lawn and garden, and professional lawn, turf and ornamental applications, as well as for oil and grease absorption.

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
<b>Business Segment Information</b>			
Revenues by Product Line:			
Papermaking Systems:			
Stock-Preparation.....	\$ 193,838	\$ 171,378	\$ 148,341
Doctoring, Cleaning, & Filtration.....	109,631	105,938	101,523
Fluid-Handling.....	104,136	89,145	92,797
Papermaking Systems.....	<u>\$ 407,605</u>	<u>\$ 366,461</u>	<u>\$ 342,661</u>
Wood Processing Systems.....	95,053	36,850	36,387
Fiber-based Products.....	12,375	10,815	11,059
	<u>\$ 515,033</u>	<u>\$ 414,126</u>	<u>\$ 390,107</u>
Income from Continuing Operations Before Provision for Income Taxes:			
Papermaking Systems (a).....	\$ 72,600	\$ 57,427	\$ 56,789
Wood Processing Systems (b).....	9,690	8,327	10,926
Corporate and Fiber-based Products (c).....	(21,537)	(20,181)	(17,596)
Total operating income.....	<u>60,753</u>	<u>45,573</u>	<u>50,119</u>
Interest expense, net (d).....	(3,100)	(1,024)	(748)
	<u>\$ 57,653</u>	<u>\$ 44,549</u>	<u>\$ 49,371</u>

## Notes to Consolidated Financial Statements

## 11. Business Segment and Geographical Information (continued)

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016
<b>Total Assets:</b>			
Papermaking Systems .....	\$ 494,919	\$ 407,538	\$ 354,417
Wood Processing Systems .....	257,467	52,407	53,347
Other (e) .....	8,708	10,746	7,734
	<u>\$ 761,094</u>	<u>\$ 470,691</u>	<u>\$ 415,498</u>
<b>Depreciation and Amortization:</b>			
Papermaking Systems .....	\$ 11,239	\$ 11,513	\$ 7,898
Wood Processing Systems .....	7,515	2,188	2,384
Other .....	621	625	539
	<u>\$ 19,375</u>	<u>\$ 14,326</u>	<u>\$ 10,821</u>
<b>Capital Expenditures:</b>			
Papermaking Systems .....	\$ 14,359	\$ 5,504	\$ 4,639
Wood Processing Systems .....	2,333	29	198
Other .....	589	271	642
	<u>\$ 17,281</u>	<u>\$ 5,804</u>	<u>\$ 5,479</u>
<b>Geographical Information</b>			
<b>Revenues (f):</b>			
United States .....	\$ 182,788	\$ 165,335	\$ 193,383
China .....	63,910	43,299	50,814
Canada .....	47,611	28,888	21,164
Germany .....	32,026	18,095	9,686
Other .....	188,698	158,509	115,060
	<u>\$ 515,033</u>	<u>\$ 414,126</u>	<u>\$ 390,107</u>
<b>Long-lived Assets (g):</b>			
United States .....	\$ 32,852	\$ 18,482	\$ 17,373
China .....	11,685	10,714	12,278
Canada .....	9,449	1,125	1,312
Germany .....	6,452	5,792	63
Other .....	19,285	11,591	11,267
	<u>\$ 79,723</u>	<u>\$ 47,704</u>	<u>\$ 42,293</u>

- (a) Includes \$787,000 in 2017 and \$3,491,000 in 2016 of acquisition-related expenses. Acquisition-related expenses include acquisition transaction costs and amortization of acquired profit in inventory and backlog. Includes restructuring costs of \$203,000 in 2017, other income of \$317,000 in 2016, and restructuring costs of \$515,000 in 2015 (see Note 8).
- (b) Includes \$11,163,000 of acquisition-related expenses in 2017.
- (c) Corporate primarily includes general and administrative expenses.
- (d) The Company does not allocate interest expense, net to its segments.
- (e) Primarily includes Corporate and Fiber-based Products' cash and cash equivalents and property, plant, and equipment.
- (f) Revenues are attributed to countries based on customer location.
- (g) Represents property, plant, and equipment, net.

## Notes to Consolidated Financial Statements

## 12. Earnings per Share

Basic and diluted EPS were calculated as follows:

(In thousands, except per share amounts)	December 30, 2017	December 31, 2016	January 2, 2016
<b>Amounts Attributable to Kadant:</b>			
Income from Continuing Operations .....	\$ 31,092	\$ 32,074	\$ 34,315
Income from Discontinued Operation .....	—	3	74
Net Income Attributable to Kadant .....	<u>\$ 31,092</u>	<u>\$ 32,077</u>	<u>\$ 34,389</u>
Basic Weighted Average Shares .....	10,991	10,869	10,867
Effect of Stock Options, Restricted Stock Units and Employee Stock Purchase Plan .....	321	280	227
Diluted Weighted Average Shares .....	<u>11,312</u>	<u>11,149</u>	<u>11,094</u>
Basic EPS:			
Continuing Operations .....	\$ 2.83	\$ 2.95	\$ 3.16
Discontinued Operation .....	\$ —	\$ —	\$ 0.01
Earnings per Basic Share .....	\$ 2.83	\$ 2.95	\$ 3.16
Diluted EPS:			
Continuing Operations .....	\$ 2.75	\$ 2.88	\$ 3.09
Discontinued Operation .....	\$ —	\$ —	\$ 0.01
Earnings per Diluted Share .....	\$ 2.75	\$ 2.88	\$ 3.10

The dilutive effect of RSUs totaling 15,600 shares in 2017, 36,700 shares in 2016, and 23,100 shares in 2015 of common stock was not included in the computation of diluted EPS, as the effect would have been antidilutive or, for unvested performance-based RSUs, the performance conditions had not been met as of the end of the reporting periods during the year.

## 13. Accumulated Other Comprehensive Items

Comprehensive income combines net income and other comprehensive items, which represent certain amounts that are reported as components of stockholders' equity in the accompanying consolidated balance sheet, including foreign currency translation adjustments, unrecognized prior service cost and deferred losses associated with pension and other post-retirement benefit plans, and deferred gains (losses) on hedging instruments.

Changes in each component of AOCI, net of tax are as follows:

(In thousands)	Foreign Currency Translation Adjustment	Unrecognized Prior Service Cost	Deferred Loss on Pension and Other Post- Retirement Benefit Plans	Deferred Gain (Loss) on Hedging Instruments	Accumulated Other Comprehensive Items
Balance at December 31, 2016 .....	\$ (41,094)	\$ (397)	\$ (8,158)	\$ 12	\$ (49,637)
Other comprehensive income (loss) before reclassifications .....	23,593	(17)	(1,185)	(17)	22,374
Reclassifications from AOCI .....	—	95	369	84	548
Net current period other comprehensive income (loss) .....	23,593	78	(816)	67	22,922
Balance at December 30, 2017 .....	<u>\$ (17,501)</u>	<u>\$ (319)</u>	<u>\$ (8,974)</u>	<u>\$ 79</u>	<u>\$ (26,715)</u>

## Notes to Consolidated Financial Statements

## 13. Accumulated Other Comprehensive Items (continued)

Amounts reclassified out of AOCI are as follows:

(In thousands)	December 30, 2017	December 31, 2016	January 2, 2016	Income Statement Line Item
<b>Pension and Other Post-Retirement Plans (1)</b>				
Amortization of prior service costs.....	\$ (147)	\$ (147)	\$ (147)	SG&A expenses
Amortization of actuarial losses .....	(563)	(701)	(576)	SG&A expenses
Total expense before income taxes.....	(710)	(848)	(723)	
Income tax benefit .....	246	295	249	Provision for income taxes
	<u>(464)</u>	<u>(553)</u>	<u>(474)</u>	
<b>Cash Flow Hedges (2)</b>				
Interest rate swap agreements.....	(30)	(174)	(420)	Interest expense
Forward currency-exchange contracts.....	—	(14)	(12)	Revenues
Forward currency-exchange contracts.....	(97)	(186)	—	Cost of revenues
Forward currency-exchange contracts.....	—	—	1,691	SG&A expenses
Total (expense) income before income taxes..	(127)	(374)	1,259	
Income tax benefit (provision).....	43	(37)	(150)	Provision for income taxes
	<u>(84)</u>	<u>(411)</u>	<u>1,109</u>	
Total Reclassifications .....	<u>\$ (548)</u>	<u>\$ (964)</u>	<u>\$ 635</u>	

(1) Included in the computation of net periodic benefit costs. See Note 3 for additional information.

(2) See Note 9 for additional information.

## 14. Unaudited Quarterly Information

2017 (In thousands, except per share amounts)	First	Second	Third	Fourth
Revenues.....	\$ 102,857	\$ 110,242	\$ 152,794	\$ 149,140
Gross Profit.....	48,992	52,824	64,628	64,590
Net Income Attributable to Kadant.....	\$ 8,951	\$ 8,096	\$ 13,285	\$ 760
Basic Earnings per Share:				
Net Income Attributable to Kadant .....	\$ 0.82	\$ 0.74	\$ 1.21	\$ 0.07
Diluted Earnings per Share:				
Net Income Attributable to Kadant .....	\$ 0.80	\$ 0.72	\$ 1.17	\$ 0.07
Cash Dividends Declared per Common Share .....	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21
<b>2016 (In thousands, except per share amounts)</b>				
Revenues.....	\$ 96,538	\$ 111,828	\$ 105,519	\$ 100,241
Gross Profit.....	43,976	50,261	48,079	46,073
Amounts Attributable to Kadant:				
Income from Continuing Operations .....	6,876	8,311	9,154	7,733
Income from Discontinued Operation .....	—	—	3	—
Net Income Attributable to Kadant.....	\$ 6,876	\$ 8,311	\$ 9,157	\$ 7,733
Basic Earnings per Share:				
Continuing Operations .....	\$ 0.64	\$ 0.76	\$ 0.84	\$ 0.71
Net Income Attributable to Kadant .....	\$ 0.64	\$ 0.76	\$ 0.84	\$ 0.71
Diluted Earnings per Share:				
Continuing Operations .....	\$ 0.62	\$ 0.75	\$ 0.82	\$ 0.69
Net Income Attributable to Kadant .....	\$ 0.62	\$ 0.75	\$ 0.82	\$ 0.69
Cash Dividends Declared per Common Share .....	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19

## DIRECTORS AND EXECUTIVE OFFICERS

(AS OF MARCH 29, 2018)

### DIRECTORS

**William A. Rainville** Chairman of the Board, Former President and Chief Executive Officer, Kadant Inc.

**John M. Albertine** Chairman and Chief Executive Officer, Albertine Enterprises, Inc. (consulting and merchant banking)

**Thomas C. Leonard** Director, Former Chief Financial Officer and Chief Accounting Officer, Dynasil Corporation of America (manufacturer of detection and optical components)

**Jonathan W. Painter** President and Chief Executive Officer, Kadant Inc.

**William P. Tully** Emeritus Provost, Vice President and Professor, State University of New York, College of Environmental Science and Forestry (educational institution)

### EXECUTIVE OFFICERS

**Jonathan W. Painter** President and Chief Executive Officer

**Michael J. McKenney** Executive Vice President and Chief Financial Officer

**Eric T. Langevin** Executive Vice President and Co-Chief Operating Officer

**Jeffrey L. Powell** Executive Vice President and Co-Chief Operating Officer

**Sandra L. Lambert** Vice President, General Counsel, and Secretary

**Deborah S. Selwood** Vice President and Chief Accounting Officer

## CORPORATE INFORMATION

### STOCKHOLDER INFORMATION REQUESTS

Stockholders who desire information about Kadant Inc. may contact us at One Technology Park Drive, Westford, MA 01886 (telephone: 978-776-2000). Information of interest to stockholders and investors, such as our quarterly reports, annual reports, press releases and other information, is available on our website at [www.kadant.com](http://www.kadant.com), under "Investors."

### STOCK TRANSFER AGENT

American Stock Transfer & Trust Company is our stock transfer agent and maintains stockholder activity records. The agent will respond to questions on issuance of stock certificates, change of ownership, lost stock certificates, and change of address. For these and similar matters, please direct inquiries to: American Stock Transfer & Trust Company, Shareholder Services Department, 6201 15th Avenue, Brooklyn, NY 11219 (telephone: 718-921-8124 or 800-937-5449) or visit [www.amstock.com](http://www.amstock.com).

### ANNUAL MEETING

The annual meeting of stockholders will be held on Wednesday, May 16, 2018, at 2:30 p.m., at Kadant Inc., One Technology Park Drive, Westford, Massachusetts.

### ANNUAL REPORT ON FORM 10-K

The accompanying Annual Report on Form 10-K for the fiscal year ended December 30, 2017, does not contain exhibits. Exhibits have been filed with the Securities and Exchange Commission (SEC). To obtain a copy of these exhibits, as well as periodic reports filed with the SEC, please contact Michael McKenney, Executive Vice President and Chief Financial Officer, Kadant Inc., One Technology Park Drive, Westford, MA 01886 (telephone: 978-776-2000).

### FORWARD-LOOKING STATEMENTS

This annual report contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "intends," "anticipates," "plans," "expects," "seeks," "estimates," "would," "should," "likely," "will," "may," "continue," "could," or similar expressions are intended to identify forward-looking statements. While we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so, even if our estimates change. A number of factors could cause our results to differ materially from those indicated by such forward-looking statements, including those detailed under the heading "Risk Factors" in Part 1, Item 1A in the accompanying Annual Report on Form 10-K for the fiscal year ended December 30, 2017.



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