KADANT INC Form 10-K March 16, 2016

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

FORM 10-K

(mark one)					
x ANNUAL REPORT PURSUANT TO SECTION 13 OF 1934	OR 15(D) OF THE SECU	RITIES EXCHANGE ACT			
For the fiscal year ended January 2, 2016					
OR					
TRANSITION REPORT PURSUANT TO SECTIO ACT OF 1934	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934				
Commission file number 1-11406					
KADANT INC.					
(Exact name of Registrant as specified in its charter)					
Delaware	52-1762325				
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identifica	ation No.)			
One Technology Park Drive					
Westford, Massachusetts	01886				
(Address of principal executive offices)	(Zip Code)				
Registrant's telephone number, including area code: (978) 77	6-2000				
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: No	one				
Indicate by check mark if the Registrant is a well-known seas	soned issuer, as defined in R	Rule 405 of the Securities			
Act. Yes "No x					
Indicate by check mark if the Registrant is not required to file Act. Yes "No x	e reports pursuant to Section	n 13 or Section 15(d) of the			
Indicate by check mark whether the Registrant (1) has filed a the Securities Exchange Act of 1934 during the preceding 12 was required to file such reports), and (2) has been subject to No	months (or for such shorter	period that the Registrant			
Indicate by check mark whether the Registrant has submitted any, every Interactive Data File required to be submitted and the preceding 12 months (or for such shorter period that the H Yes x No "	posted pursuant to Rule 40. Registrant was required to su	5 of Regulation S-T during ubmit and post such files).			
Indicate by check mark if disclosure of delinquent filers purs	uant to Item 405 of Regulat	ion S-K is not contained			
herein, and will not be contained, to the best of the Registran	e				
statements incorporated by reference in Part III of this Form	-				
Indicate by check mark whether the Registrant is a large acce or a smaller reporting company. See the definitions of "large					
reporting company" in Rule 12b-2 of the Exchange Act.					
Large accelerated filer " Non-accelerated filer " (Do not check if a smaller reporting c	ompany)	Accelerated filer x Smaller reporting company "			

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

The aggregate market value of the voting and non-voting common equity held by nonaffiliates of the Registrant as of July 4, 2015, was approximately \$501,385,000.

As of February 19, 2016, the Registrant had 10,773,380 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 2016 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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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, 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 used in process industries, including papermaking, paper recycling, and oriented strand board (OSB), an engineered wood panel product used primarily in home construction. In addition, we manufacture granules made from papermaking byproducts. We have a large customer base that includes most of the world's major paper and OSB manufacturers. We believe our large installed base provides us with a spare parts and consumables business that yields higher margins than our capital equipment business.

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, and other process industries. Through our Wood Processing Systems segment, we design, manufacture, and market stranders and related equipment used in the production of OSB and sell debarking and wood chipping equipment used in the forest products and the pulp and paper industries. Through our Fiber-based Products business, we manufacture and sell granules derived from pulp fiber for use as carriers for agricultural, home lawn and garden, and professional lawn, turf and ornamental applications, as well as for oil and grease absorption.

Papermaking Systems Segment

Our Papermaking Systems segment has a long and well-established history of developing, manufacturing, and marketing equipment for the global papermaking and paper recycling 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 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 complete custom-engineered systems and equipment, as well as standard individual components, for 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 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.

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- 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.
- 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 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 paper machine fabrics and rolls, drain water from pulp mixtures, form the sheet or web, and filter the process water for reuse. 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. A large paper machine may have as many as 100 doctor systems.
- 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 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 boxboard, metals, plastics, rubber, textiles, chemicals, and food. Our principal fluid-handling systems 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 primarily inside the rotating cylinders of paper machines, are used to remove condensate from the drying cylinders through rotary joints 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.
- 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.

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Wood Processing Systems Segment

We design and manufacture stranders and related equipment used in the production of OSB. We also supply debarking and wood chipping equipment used in the forest products and the pulp and paper industries. Our principal wood-processing products include:

- Stranders: Our disc and ring stranders cut tree-length or batch-fed logs into strands for OSB production and are used to manage strands in real time using our patented conveying and feeding equipment.
- Rotary Debarkers: Our rotary debarkers employ a combination of mechanical abrasion and log-to-log contact to efficiently remove bark from logs of all shapes and species.
- Chippers: Our disc, drum, and veneer chippers are high-quality, robust chipper systems for waste-wood and whole-log applications found in pulp woodrooms, chip plants, sawmill, and planer mill sites.

Fiber-based Products

We produce biodegradable, absorbent granules from papermaking byproducts 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.

Fiscal Year

Typically, our fiscal quarters and fiscal year consist of 13 and 52 weeks, respectively, ending on the Saturday closest to the end of the corresponding calendar quarter for our fiscal quarters and on the Saturday closest to December 31 for our fourth fiscal quarter and fiscal year. As a result of the difference between the fiscal and calendar periods, a 53rd week is added to our fiscal year every five or six years. In a 53-week fiscal year, our fourth fiscal quarter contains 14 weeks. Our fiscal year ended January 2, 2016 (fiscal 2015) contained 52 weeks, our fiscal year ended January 3, 2015 (fiscal 2014) contained 53 weeks, and our fiscal year ended December 28, 2013 (fiscal 2013) contained 52 weeks. Each quarter of fiscal 2015, 2014, and 2013 contained 13 weeks, except the fourth quarter of 2014, which contained 14 weeks.

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 Europe, Canada, and the U.S., and focus our product innovations on process industry challenges and the need for improved fiber processing, heat transfer, showering, filtration, doctoring, fluid handling, and engineered wood processing. 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 \$6.7 million, \$6.2 million, and \$6.7 million in 2015*, 2014, and 2013, respectively.

Raw Materials

The primary raw materials used in our Papermaking Systems segment are steel, stainless steel, ductile iron, brass, and bronze, which have generally been available through a number of suppliers. To date, we have not needed to maintain raw material inventories in excess of our current needs to ensure availability.

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 sufficient fiber, we would be forced to find one or more alternative suppliers for this raw material.

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.

^{*} Unless otherwise noted, references to 2015, 2014, and 2013 in this Annual Report on Form 10-K are for the fiscal years ended January 2, 2016, January 3, 2015, and December 28, 2013, respectively.

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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 2016 to 2034. 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 currently hold several U.S. and Canadian patents, expiring on various dates ranging from 2017 to 2032, related to wood processing and debarking equipment.

Fiber-based Products

We currently hold several U.S. patents, expiring on various dates ranging from 2018 to 2027, 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 business is subject to seasonal variations, with demand for many of our products tending to be greater during the building 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 and fourth quarters, when sales decline due to the seasonality of the agricultural and home lawn and garden markets.

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 more than 10% of our consolidated revenues in any of the past three years. In addition, revenues in our Papermaking Systems and Wood Processing Systems segments were not dependent on any one customer. During 2015, 2014, and 2013, approximately 50%, 57%, and 63%, respectively, of our sales were to customers outside the United States, principally in Europe and Asia.

Backlog

Our backlog of firm orders for the Papermaking Systems segment was \$94.9 million and \$115.0 million at year-end 2015 and 2014, respectively. The total consolidated backlog of firm orders was \$102.6 million and \$124.2 million at year-end 2015 and 2014, respectively. In 2015, we reduced our backlog for an order totaling \$16.1 million due to uncertainty regarding financing for a project in China, originally recorded in 2014. We anticipate that substantially all of the backlog at year-end 2015 will be shipped or completed during 2016. Some of these orders can be canceled by the customer upon payment of a cancellation fee.

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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 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; and
- Relative price 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

As of year-end 2015, we had approximately 1,800 employees worldwide.

Financial Information About Geographic Areas

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

Financial information about exports by domestic operations and about foreign operations 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. 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 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.

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Executive Officers of the Registrant

The following table summarizes certain information concerning individuals who are our executive officers as of March 1, 2016:

Name	Age	Present Title (Fiscal Year First Became Executive Officer)
Jonathan W. Painter	57	President and Chief Executive Officer (1997)
Eric T. Langevin	53	Executive Vice President and Chief Operating Officer (2006)
Jeffrey L. Powell	57	Executive Vice President (2009)
Michael J. McKenney	54	Senior Vice President and Chief Financial Officer (2002)
Sandra L. Lambert	60	Vice President, General Counsel, and Secretary (2001)
Deborah S. Selwood	47	