

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

**FORM 10-Q**

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the quarterly period ended September 30, 2017

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-11406

**KADANT INC.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or Other Jurisdiction of Incorporation or Organization)

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

One Technology Park Drive  
Westford, Massachusetts  
(Address of Principal Executive Offices)

01886  
(Zip Code)

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

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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See 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  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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding at October 27, 2017
Common Stock, \$.01 par value	11,007,321

**Kadant Inc.**  
**Quarterly Report on Form 10-Q**  
**for the Period Ended September 30, 2017**  
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**PART 1 – FINANCIAL INFORMATION****Item 1 – Financial Statements**

**KADANT INC.**  
Condensed Consolidated Balance Sheet  
(Unaudited)

(In thousands, except share amounts)	September 30, 2017	December 31, 2016
<b>Assets</b>		
Current Assets:		
Cash and cash equivalents	\$ 90,622	\$ 71,487
Restricted cash (Note 1)	766	2,082
Accounts receivable, less allowances of \$2,640 and \$2,395 (Note 1)	94,664	65,963
Inventories (Note 1)	90,450	54,951
Unbilled contract costs and fees	6,256	3,068
Other current assets	20,911	9,799
<b>Total Current Assets</b>	<b>303,669</b>	<b>207,350</b>
Property, Plant, and Equipment, at Cost	153,878	124,424
Less: accumulated depreciation and amortization	83,505	76,720
	70,373	47,704
Other Assets	13,546	11,452
Intangible Assets, Net (Notes 1 and 2)	135,231	52,730
Goodwill (Notes 1 and 2)	264,840	151,455
<b>Total Assets</b>	<b>\$ 787,659</b>	<b>\$ 470,691</b>
<b>Liabilities and Stockholders' Equity</b>		
Current Liabilities:		
Current maturities of long-term obligations (Note 6)	\$ 707	\$ 643
Accounts payable	35,136	23,929
Customer deposits	27,940	21,168
Accrued payroll and employee benefits	25,448	20,508
Billings in excess of costs and fees	10,781	1,271
Other current liabilities	29,068	21,394
<b>Total Current Liabilities</b>	<b>129,080</b>	<b>88,913</b>
Long-Term Deferred Income Taxes	31,070	14,631
Other Long-Term Liabilities	18,531	17,100
Long-Term Obligations (Note 6)	278,091	65,768
Commitments and Contingencies (Note 13)		
Stockholders' Equity:		
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	101,774	101,405
Retained earnings	344,449	321,050
Treasury stock at cost, 3,616,838 and 3,686,532 shares	(88,627)	(90,335)
Accumulated other comprehensive items (Note 9)	(28,197)	(49,637)
<b>Total Kadant Stockholders' Equity</b>	<b>329,545</b>	<b>282,629</b>
Noncontrolling interest	1,342	1,650
<b>Total Stockholders' Equity</b>	<b>330,887</b>	<b>284,279</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 787,659</b>	<b>\$ 470,691</b>

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

**KADANT INC.**  
Condensed Consolidated Statement of Income  
(Unaudited)

(In thousands, except per share amounts)	Three Months Ended		Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
<b>Revenues (Note 12)</b>	\$ 152,794	\$ 105,519	\$ 365,893	\$ 313,885
<b>Costs and Operating Expenses:</b>				
Cost of revenues	88,166	57,440	199,449	171,569
Selling, general, and administrative expenses	42,535	33,527	116,493	102,095
Research and development expenses	2,635	1,991	7,004	5,640
Other income (Note 3)	—	—	—	(317)
	133,336	92,958	322,946	278,987
Operating Income	19,458	12,561	42,947	34,898
Interest Income	94	54	300	175
Interest Expense	(1,282)	(305)	(2,022)	(914)
Income Before Provision for Income Taxes	18,270	12,310	41,225	34,159
Provision for Income Taxes (Note 5)	4,860	3,081	10,550	9,500
Income from Continuing Operations	13,410	9,229	30,675	24,659
Income from Discontinued Operation (net of income tax provision of \$1 in the 2016 periods)	—	3	—	3
Net Income	13,410	9,232	30,675	24,662
Net Income Attributable to Noncontrolling Interest	(125)	(75)	(343)	(318)
<b>Net Income Attributable to Kadant</b>	<b>\$ 13,285</b>	<b>\$ 9,157</b>	<b>\$ 30,332</b>	<b>\$ 24,344</b>
<b>Earnings per Share Attributable to Kadant (Note 4):</b>				
Basic	\$ 1.21	\$ 0.84	\$ 2.76	\$ 2.24
Diluted	\$ 1.17	\$ 0.82	\$ 2.69	\$ 2.19
<b>Weighted Average Shares (Note 4):</b>				
Basic	11,004	10,901	10,986	10,854
Diluted	11,344	11,189	11,282	11,120
<b>Cash Dividends Declared per Common Share</b>	<b>\$ 0.21</b>	<b>\$ 0.19</b>	<b>\$ 0.63</b>	<b>\$ 0.57</b>

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

**KADANT INC.**  
Condensed Consolidated Statement of Comprehensive Income  
(Unaudited)

(In thousands)	Three Months Ended		Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Net Income	\$ 13,410	\$ 9,232	\$ 30,675	\$ 24,662
<b>Other Comprehensive Items:</b>				
Foreign currency translation adjustment	7,740	(979)	21,427	(243)
Pension and other post-retirement liability adjustments (net of tax provision (benefit) of \$26 and \$86 in the three and nine months ended September 30, 2017, respectively, and \$68 and \$(91) in the three and nine months ended October 1, 2016, respectively)	(11)	127	152	(144)
Deferred gain on hedging instruments (net of tax provision (benefit) of \$28 and \$44 in the three and nine months ended September 30, 2017, respectively, and \$75 and \$(148) in the three and nine months ended October 1, 2016, respectively)	58	139	92	99
<b>Other Comprehensive Items</b>	<b>7,787</b>	<b>(713)</b>	<b>21,671</b>	<b>(288)</b>
<b>Comprehensive Income</b>	<b>21,197</b>	<b>8,519</b>	<b>52,346</b>	<b>24,374</b>
<b>Comprehensive Income Attributable to Noncontrolling Interest</b>	<b>(193)</b>	<b>(92)</b>	<b>(574)</b>	<b>(358)</b>
<b>Comprehensive Income Attributable to Kadant</b>	<b>\$ 21,004</b>	<b>\$ 8,427</b>	<b>\$ 51,772</b>	<b>\$ 24,016</b>

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

**KADANT INC.**  
Condensed Consolidated Statement of Cash Flows  
(Unaudited)

(In thousands)	Nine Months Ended	
	September 30, 2017	October 1, 2016
<b>Operating Activities:</b>		
Net income attributable to Kadant	\$ 30,332	\$ 24,344
Net income attributable to noncontrolling interest	343	318
Income from discontinued operation	—	(3)
Net income	30,675	24,659
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	13,056	10,934
Stock-based compensation expense	4,283	3,865
Provision for losses on accounts receivable	238	420
Loss (gain) on the sale of property, plant, and equipment	37	(384)
Other items, net	(738)	256
Contributions to U.S. pension plan	(810)	(810)
Changes in current assets and liabilities, net of effects of acquisitions:		
Accounts receivable	(16,225)	3,731
Unbilled contract costs and fees	(2,582)	1,713
Inventories	(3,504)	2,051
Other current assets	(2,517)	620
Accounts payable	2,049	(5,599)
Other current liabilities	8,366	(6,717)
Net cash provided by continuing operations	32,328	34,739
Net cash used in discontinued operation	—	(2)
Net cash provided by operating activities	32,328	34,737
<b>Investing Activities:</b>		
Acquisitions, net of cash acquired (Note 2)	(204,228)	(56,617)
Purchases of property, plant, and equipment	(8,718)	(3,579)
Proceeds from sale of property, plant, and equipment	111	409
Net cash used in investing activities	(212,835)	(59,787)
<b>Financing Activities:</b>		
Proceeds from issuance of debt (Note 6)	222,019	48,046
Repayment of debt	(20,272)	(15,429)
Dividends paid	(6,699)	(5,964)
Tax withholding payments related to stock-based compensation	(2,206)	(2,572)
Payment of debt issuance costs (Note 6)	(1,257)	(27)
Payment of contingent consideration	—	(1,091)
Proceeds from issuance of Company common stock	—	1,780
Change in restricted cash	1,523	(793)
Dividend paid to noncontrolling interest	(882)	—
Other financing activities	(288)	—
Net cash provided by financing activities	191,938	23,950
Exchange Rate Effect on Cash and Cash Equivalents	7,704	(1,195)
Increase (Decrease) in Cash and Cash Equivalents	19,135	(2,295)
Cash and Cash Equivalents at Beginning of Period	71,487	65,530
Cash and Cash Equivalents at End of Period	\$ 90,622	\$ 63,235

See Note 1 for supplemental cash flow information.

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

**KADANT INC.**  
Condensed Consolidated Statement of Stockholders' Equity  
(Unaudited)

(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 2, 2016</b>	14,624,159	\$ 146	\$ 100,536	\$ 297,258	3,850,779	\$(94,359)	\$ (36,972)	\$ 1,336	\$ 267,945
Net income	—	—	—	24,344	—	—	—	318	24,662
Dividends declared	—	—	—	(6,207)	—	—	—	—	(6,207)
Activity under stock plans	—	—	(343)	—	(141,373)	3,464	—	—	3,121
Other comprehensive items	—	—	—	—	—	—	(328)	40	(288)
<b>Balance at October 1, 2016</b>	<u>14,624,159</u>	<u>\$ 146</u>	<u>\$ 100,193</u>	<u>\$ 315,395</u>	<u>3,709,406</u>	<u>\$(90,895)</u>	<u>\$ (37,300)</u>	<u>\$ 1,694</u>	<u>\$ 289,233</u>
<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	—	—	—	30,332	—	—	—	343	30,675
Dividends declared	—	—	—	(6,933)	—	—	—	—	(6,933)
Dividend paid to noncontrolling interest	—	—	—	—	—	—	—	(882)	(882)
Activity under stock plans	—	—	369	—	(69,694)	1,708	—	—	2,077
Other comprehensive items	—	—	—	—	—	—	21,440	231	21,671
<b>Balance at September 30, 2017</b>	<u>14,624,159</u>	<u>\$ 146</u>	<u>\$ 101,774</u>	<u>\$ 344,449</u>	<u>3,616,838</u>	<u>\$(88,627)</u>	<u>\$ (28,197)</u>	<u>\$ 1,342</u>	<u>\$ 330,887</u>

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

**KADANT INC.**Notes to Condensed Consolidated Financial Statements  
(Unaudited)**1. Nature of Operations and Summary of Significant Accounting Policies***Nature of Operations*

Kadant Inc. (collectively, "Kadant," "the Company," or "the Registrant") was incorporated in Delaware in November 1991 and currently trades on the New York Stock Exchange under the ticker symbol "KAI."

The Company and its subsidiaries' 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 primarily for papermaking, paper recycling, recycling and waste management, and other process industries worldwide. The Company's principal products in 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 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 debarkers, stranders, and timber harvesting equipment used in the production of lumber and oriented strand board (OSB), an engineered wood panel product used primarily in home construction. 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 granules derived from papermaking by-products primarily for use as agricultural carriers and for home lawn and garden applications, as well as for oil and grease absorption.

*Interim Financial Statements*

The interim condensed consolidated financial statements and related notes presented have been prepared by the Company, are unaudited, and, in the opinion of management, reflect all adjustments of a normal recurring nature necessary for a fair statement of the Company's financial position at September 30, 2017 and its results of operations and comprehensive income for the three- and nine-month periods ended September 30, 2017 and October 1, 2016, and its cash flows and stockholders' equity for the nine-month periods ended September 30, 2017 and October 1, 2016. Interim results are not necessarily indicative of results for a full year or for any other interim period.

The condensed consolidated balance sheet presented as of December 31, 2016 has been derived from the consolidated financial statements contained in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016. The condensed consolidated financial statements and related notes are presented as permitted by the Securities and Exchange Commission (SEC) rules and regulations for Form 10-Q and do not contain certain information included in the annual consolidated financial statements and related notes of the Company. The condensed consolidated financial statements and notes included herein should be read in conjunction with the consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC.

*Critical Accounting Policies*

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 and accounts receivable, warranty obligations, income taxes, the valuation of goodwill and intangible assets, inventories and pension obligations. A discussion of the application of these and other accounting policies is included in Notes 1 and 3 to the consolidated financial statements in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
(Unaudited)

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

*Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (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.

Although the Company makes every effort to ensure the accuracy of the estimates and assumptions used in the preparation of its condensed 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 condensed consolidated financial statements.

*Supplemental Cash Flow Information*

(In thousands)	Nine Months Ended	
	September 30, 2017	October 1, 2016
<b>Non-Cash Investing Activities:</b>		
Fair value of assets acquired	\$ 241,141	\$ 87,060
Cash paid for acquired businesses	(206,447)	(58,894)
Liabilities assumed of acquired businesses	<u>\$ 34,694</u>	<u>\$ 28,166</u>
<b>Non-Cash Financing Activities:</b>		
Issuance of Company common stock	\$ 3,018	\$ 3,260
Dividends declared but unpaid	\$ 2,312	\$ 2,074

*Restricted Cash*

As of September 30, 2017 and December 31, 2016, the Company had restricted cash of \$766,000 and \$2,082,000, respectively. 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.

*Banker's Acceptance Drafts*

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 \$16,687,000 and \$7,852,000 at September 30, 2017 and December 31, 2016, respectively, are included in accounts receivable in the accompanying condensed 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.

*Inventories*

The components of inventories are as follows:

(In thousands)	September 30, 2017	December 31, 2016
Raw Materials and Supplies	\$ 40,969	\$ 21,086
Work in Process	20,158	12,293
Finished Goods	29,323	21,572
Total Inventories	<u>\$ 90,450</u>	<u>\$ 54,951</u>

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
(Unaudited)

**1. Nature of Operations and Summary of Significant Accounting Policies (continued)**
*Intangible Assets, Net*

The changes in the carrying amount of intangible assets are as follows:

(In thousands)	September 30, 2017	December 31, 2016
Indefinite-Lived, Gross	\$ 8,100	\$ 8,100
Acquisition (Note 2)	8,500	—
Currency translation	271	—
Indefinite-Lived, Net	<u>16,871</u>	<u>8,100</u>
Definite-Lived, Gross	101,743	77,052
Acquisitions (Note 2)	75,540	24,691
Accumulated amortization	(56,913)	(49,040)
Currency translation	(2,010)	(8,073)
Definite-Lived, Net	<u>118,360</u>	<u>44,630</u>
Total Intangible Assets, Net	<u>\$ 135,231</u>	<u>\$ 52,730</u>

Intangible assets by major asset class are as follows:

(In thousands)	Gross	Currency Translation	Accumulated Amortization	Net
September 30, 2017				
Customer relationships	\$ 111,801	\$ (821)	\$ (26,404)	\$ 84,576
Intellectual property	46,501	(817)	(18,846)	26,838
Tradenames	21,827	(39)	(1,382)	20,406
Other	13,754	(62)	(10,281)	3,411
	<u>\$ 193,883</u>	<u>\$ (1,739)</u>	<u>\$ (56,913)</u>	<u>\$ 135,231</u>
December 31, 2016				
Customer relationships	\$ 59,101	\$ (5,202)	\$ (21,805)	\$ 32,094
Intellectual property	27,101	(2,052)	(17,105)	7,944
Tradenames	12,547	(591)	(1,065)	10,891
Other	11,094	(228)	(9,065)	1,801
	<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 condensed 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.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
(Unaudited)

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

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 at December 31, 2016</b>			
Gross balance	\$ 219,699	\$ 17,265	\$ 236,964
Accumulated impairment losses	(85,509)	—	(85,509)
Net balance	134,190	17,265	151,455
<b>2017 Adjustments</b>			
Acquisitions (Note 2)	15,277	84,606	99,883
Currency translation	9,937	3,565	13,502
Total 2017 adjustments	25,214	88,171	113,385
<b>Balance at September 30, 2017</b>			
Gross balance	244,913	105,436	350,349
Accumulated impairment losses	(85,509)	—	(85,509)
Net balance	\$ 159,404	\$ 105,436	\$ 264,840

*Warranty Obligations*

The Company provides for the estimated cost of product warranties at the time of sale based on the actual historical occurrence rates and repair costs, as well as knowledge of any specific warranty problems that indicate that 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 actual product failure rates, repair costs, service delivery costs, or supplier warranties on parts 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 condensed consolidated balance sheet are as follows:

(In thousands)	Nine Months Ended	
	September 30, 2017	October 1, 2016
Balance at Beginning of Year	\$ 3,843	\$ 3,670
Provision charged to income	1,931	2,454
Usage	(1,506)	(2,574)
Acquisitions	790	991
Currency translation	382	(19)
Balance at End of Period	\$ 5,440	\$ 4,522

*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 Financial Accounting Standards Board (FASB) issued Accounting Standards Update (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 analysis of transactions to determine when and how revenue is recognized. The ASU will replace most existing revenue recognition guidance in GAAP when it becomes effective. 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 guidance on identifying performance

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

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. These new ASUs are effective for the Company beginning in fiscal 2018. Early adoption is permitted in fiscal 2017. The Company is continuing to assess the potential effects of these ASUs on its condensed consolidated financial statements, business processes, systems and controls. While the assessment process is ongoing, the Company currently anticipates adopting these ASUs using the modified retrospective transition approach. Under this approach, this guidance would apply 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 would be recognized using a cumulative effect adjustment to the opening balance of retained earnings. The Company is also in the process of developing and implementing appropriate changes to its business processes, systems and 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. Adoption of this ASU did not have a material effect on the Company's condensed 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, which is required using the modified retrospective transition method. The Company is currently evaluating the other effects that the adoption of this ASU will have on its condensed consolidated financial statements.

*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 condensed 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. This new guidance is effective for the Company in fiscal 2018. Early adoption is permitted. The Company does not believe that adoption of this ASU will have a material impact on its condensed consolidated financial statements.

*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 inventory. This new guidance is effective for the Company in fiscal 2018 with adoption required on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Early

**KADANT INC.**Notes to Condensed Consolidated Financial Statements  
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adoption is permitted. The Company is currently evaluating the effect that the adoption of this ASU will have on its condensed 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. This new guidance is effective for the Company in fiscal 2018. Early adoption is permitted. As this ASU is presentation-related only, adoption of this ASU will not have a material impact on the Company's condensed consolidated financial statements.

*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. This new guidance is effective on a prospective basis for the Company in fiscal 2018. Early adoption is allowed for certain transactions. The Company is currently evaluating the effects that the adoption of this ASU will have on its condensed consolidated financial statements.

*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. This new guidance is effective on a prospective basis for the Company in fiscal 2020. Early adoption is permitted. The Company does not believe that adoption of this ASU will have a material effect on its condensed 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 ASU also stipulates that only the service cost component of net benefit cost is eligible for capitalization. This new guidance is effective on a retrospective basis for the Company in fiscal 2018. Early adoption is permitted. The Company is currently evaluating the effects that adoption of this ASU will have on its condensed consolidated financial statements.

*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. This new guidance is effective on a prospective basis for the Company in fiscal 2018. Early adoption is permitted. The Company does not believe that adoption of this ASU will have a material effect on its condensed 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 condensed consolidated financial statements.

**KADANT INC.**  
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## 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 condensed consolidated statement of income as incurred. The Company recorded acquisition transaction costs of \$5,002,000 in the first nine months of 2017.

### *Unaflex, LLC*

On August 14, 2017, the Company acquired certain assets of Unaflex, LLC (Unaflex) for approximately \$31,274,000 in cash, subject to a post-closing adjustment. The Company funded the acquisition through borrowings under its 2017 Amended and Restated Credit Agreement (see Note 6). Unaflex, located principally in South Carolina, is a leading manufacturer of expansion joints and related products for process industries. Revenues for Unaflex were approximately \$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 \$15,277,000, all of which is expected to be deductible for tax purposes. For the quarter ended September 30, 2017, the Company recorded revenues and an operating loss from Unaflex from its date of acquisition of \$2,522,000 and \$36,000, respectively. Included in the operating loss was amortization expense of \$106,000 associated with acquired profit in inventory.

### *NII FPG Company*

On July 5, 2017, the Company acquired the forest products business of NII FPG Company (NII) pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for approximately \$170,655,000, net of cash acquired, which includes a post-closing adjustment of \$2,134,000 that was received subsequent to the end of the third quarter. In connection with the acquisition, the Company borrowed an aggregate \$170,018,000 under its 2017 Amended and Restated Credit Agreement (see Note 6) in the third quarter of 2017, including \$62,690,000 of Canadian dollar-denominated and \$61,769,000 of euro-denominated borrowings. NII, 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 also designs and manufactures harvesting equipment used in cutting, gathering, and removing timber from forest plantations. Revenues for NII 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's geographic presence, as well as sourcing and manufacturing efficiencies. Goodwill from the acquisition was \$84,606,000, of which \$32,990,000 is expected to be deductible for tax purposes. For the quarter ended September 30, 2017, the Company recorded revenues and operating income from NII from its date of acquisition of \$26,668,000 and \$1,124,000, respectively. Included in operating income was amortization expense of \$4,212,000 associated with acquired profit in inventory and backlog.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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## 2. Acquisitions (continued)

The following table summarizes the estimated fair values of assets acquired and liabilities assumed and the purchase price for NII and Unaflex. The final purchase accounting and purchase price allocation remain subject to change as the Company continues to refine its preliminary valuation of certain acquired assets and the valuation of acquired intangibles.

(In thousands)	NII July 5, 2017	Unaflex August 14, 2017
<b>Net Assets Acquired:</b>		
Cash and Cash Equivalents	\$ 2,219	\$ —
Accounts Receivable	6,542	2,079
Inventories	26,181	1,903
Property, Plant, and Equipment	12,981	1,357
Other Assets	1,732	90
<b>Definite-Lived Intangible Assets</b>		
Product technology	17,100	2,300
Customer relationships	44,700	8,000
Other	2,540	900
<b>Indefinite-Lived Intangible Assets</b>		
Tradenames	8,500	—
Goodwill	84,606	15,277
<b>Total assets acquired</b>	<b>207,101</b>	<b>31,906</b>
Accounts Payable	4,970	358
Customer Deposits	7,396	100
Long-Term Deferred Tax Liability	17,073	—
Other Liabilities	4,788	174
<b>Total liabilities assumed</b>	<b>34,227</b>	<b>632</b>
<b>Net assets acquired</b>	<b>\$ 172,874</b>	<b>\$ 31,274</b>
<b>Purchase Price:</b>		
Cash	\$ 4,990	\$ —
Cash Paid to Seller Borrowed Under the Revolving Credit Facility	170,018	31,274
Post-closing Adjustment	(2,134)	—
<b>Total purchase price</b>	<b>\$ 172,874</b>	<b>\$ 31,274</b>

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

**KADANT INC.**  
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## 2. Acquisitions (continued)

### Unaudited Supplemental Pro Forma Information

Had the acquisitions of NII and Unaflex been completed as of the beginning of 2016, the Company's pro forma results of operations for the nine months ended September 30, 2017 and October 1, 2016 would have been as follows:

(In thousands, except per share amounts)	Nine Months Ended	
	September 30, 2017	October 1, 2016
Revenues	\$ 416,570	\$ 383,450
Net Income Attributable to Kadant	\$ 40,929	\$ 20,680
Earnings per Share Attributable to Kadant:		
Basic	\$ 3.73	\$ 1.91
Diluted	\$ 3.63	\$ 1.86

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 \$5,002,000 in 2016 and reversal in 2017, for acquisition transaction costs.
- Estimated pre-tax charge to cost of revenues of \$4,986,000 in 2016 and reversal of \$3,360,000 in 2017, for the sale of NII and Unaflex inventory revalued at the date of acquisition.
- Estimated pre-tax charge to SG&A expenses of \$1,610,000 in 2016 and reversal of \$958,000 in 2017, for intangible asset amortization related to acquired backlog.
- Reversal of pre-tax income of \$852,000 in 2017, related to NII'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 and Unaflex occurred as of the beginning of 2016, or that may result in the future.

### PAALGROUP

In the first quarter of 2017, the Company paid additional post-closing consideration of \$165,000 associated with the April 2016 acquisition of RT Holding GmbH, the parent corporation of a group of companies known as the PAALGROUP (PAAL).

## 3. Other Income

In the first nine months of 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.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
(Unaudited)

#### 4. Earnings per Share

Basic and diluted earnings per share (EPS) are calculated as follows:

(In thousands, except per share amounts)	Three Months Ended		Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
<b>Amounts Attributable to Kadant:</b>				
Income from Continuing Operations	\$ 13,285	\$ 9,154	\$ 30,332	\$ 24,341
Income from Discontinued Operation	—	3	—	3
Net Income	\$ 13,285	\$ 9,157	\$ 30,332	\$ 24,344
Basic Weighted Average Shares	11,004	10,901	10,986	10,854
Effect of Stock Options, Restricted Stock Units and Employee Stock Purchase Plan Shares	340	288	296	266
Diluted Weighted Average Shares	11,344	11,189	11,282	11,120
Basic Earnings per Share	\$ 1.21	\$ 0.84	\$ 2.76	\$ 2.24
Diluted Earnings per Share	\$ 1.17	\$ 0.82	\$ 2.69	\$ 2.19

Unvested restricted stock units (RSUs) equivalent to approximately 4,000 and 13,000 shares of common stock in the third quarter of 2017 and 2016, respectively, and 21,000 and 62,000 shares of common stock in the first nine months of 2017 and 2016, respectively, were 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.

#### 5. Provision for Income Taxes

The provision for income taxes was \$10,550,000 and \$9,500,000 in the first nine months of 2017 and 2016, respectively, and represented 26% and 28% of pre-tax income. The effective tax rate of 26% in the first nine months of 2017 was lower than the Company's statutory tax rate primarily due to the distribution of the Company's worldwide earnings and the net excess income tax benefits from stock-based compensation arrangements, offset in part by an increase in tax related to non-deductible expenses and unrecognized tax benefits. The effective tax rate of 28% in the first nine months of 2016 was lower than the Company's statutory tax rate primarily due to the distribution of the Company's worldwide earnings, the adoption of a new accounting standard that resulted in a favorable adjustment for the net excess income tax benefits from stock-based compensation arrangements, a partial release of the U.S. valuation allowance related to state net operating losses, and a partial benefit of current-year state losses. These items were offset in part by an increase in tax related to non-deductible expenses.

#### 6. Long-Term Obligations

Long-term obligations are as follows:

(In thousands)	September 30, 2017	December 31, 2016
Revolving Credit Facility, due 2022	\$ 273,577	\$ 61,494
Obligations Under Capital Lease, due 2017 to 2022	4,639	4,309
Other Borrowings, due 2017 to 2023	582	608
Total	278,798	66,411
Less: Current Maturities of Long-Term Obligations	(707)	(643)
Long-Term Obligations	\$ 278,091	\$ 65,768

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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## 6. Long-Term Obligations (continued)

### *Revolving Credit Facility*

On March 1, 2017, the Company entered into an Amended and Restated 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 (as amended, the "2017 Credit Agreement"), 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. As of September 30, 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.

In the first nine months of 2017, the Company borrowed an aggregate \$222,019,000 under the 2017 Credit Agreement, including \$70,691,000 of Canadian dollar-denominated and \$61,769,000 of euro-denominated borrowings. As of September 30, 2017, the outstanding balance under the 2017 Credit Agreement was \$273,577,000, including \$90,410,000 of euro-denominated and \$66,608,000 of Canadian dollar-denominated borrowings. As of September 30, 2017, the Company had \$26,421,000 of borrowing capacity available under its 2017 Credit Agreement, which was calculated by translating its foreign-denominated borrowings using transaction date foreign exchange rates.

The weighted average interest rate for the borrowings under the 2017 Credit Agreement was 1.88% as of September 30, 2017.

### *Debt Issuance Costs*

During the first nine months of 2017, the Company incurred an additional \$1,257,000 of debt issuance costs related to the 2017 Credit Agreement. Unamortized debt issuance costs were \$1,362,000 as of September 30, 2017, which are included in other assets in the accompanying condensed consolidated balance sheet and are being amortized to interest expense using the straight-line method.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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## **6. Long-Term Obligations (continued)**

### *Obligations Under Capital Lease*

In connection with the acquisition of PAAL, the Company assumed a sale-leaseback financing arrangement for PAAL's facility in Germany. Under this arrangement, the quarterly lease payment includes principal and interest based on an interest rate which is reset, from time to time, to prevailing short-term borrowing rates in Germany. The interest rate at September 30, 2017 was 1.70%. The quarterly lease payment also includes a payment to the landlord toward a corresponding loan receivable. The loan receivable, which is included in other assets in the accompanying condensed consolidated balance sheet, was \$426,000 at September 30, 2017. The lease arrangement provides for a fixed price purchase option, net of the loan receivable, of \$1,644,000 at the end of the lease term in 2022. If the Company does not exercise the purchase option for the facility, the Company will receive cash from the landlord to settle the loan receivable. As of September 30, 2017, \$4,532,000 was outstanding under this capital lease obligation.

The Company also assumed capital lease obligations for certain equipment as part of the PAAL acquisition. These capital lease obligations bear a weighted average interest rate of 3.43% and have an average remaining term of 2.6 years. As of September 30, 2017, \$107,000 was outstanding under these capital lease obligations.

## **7. Stock-Based Compensation**

The Company recognized stock-based compensation expense of \$1,547,000 and \$1,269,000 in the third quarters of 2017 and 2016, respectively, and \$4,283,000 and \$3,865,000 in the first nine months of 2017 and 2016, respectively, within SG&A expenses in the accompanying condensed consolidated statement of income. The Company recognizes compensation expense 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. For 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. During the first quarter of 2017, the Company granted stock-based compensation to executive officers and employees consisting of 39,229 shares of performance-based RSUs and 38,331 shares of time-based RSUs and granted 12,000 shares of time-based RSUs to its non-employee directors. Unrecognized compensation expense related to stock-based compensation totaled approximately \$6,037,000 at September 30, 2017, and will be recognized over a weighted average period of 1.7 years.

## **8. Employee Benefit Plans**

The Company sponsors a noncontributory defined benefit pension plan 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 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.

**KADANT INC.**  
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**8. Employee Benefit Plans (continued)**

The components of net periodic benefit cost for the Company's U.S. and non-U.S. pension plans and other post-retirement benefit plans are as follows:

(In thousands, except percentages)	Three Months Ended September 30, 2017			Three Months Ended October 1, 2016		
	U.S. Pension	Non-U.S. Pension	Other Post- Retirement	U.S. Pension	Non-U.S. Pension	Other Post- Retirement
<b>Components of Net Periodic Benefit Cost:</b>						
Service cost	\$ 171	\$ 35	\$ 43	\$ 181	\$ 25	\$ 33
Interest cost	307	28	43	318	26	38
Expected return on plan assets	(331)	(10)	(1)	(322)	(5)	(1)
Recognized net actuarial loss	110	10	22	124	9	12
Amortization of prior service cost	14	2	22	14	2	22
<b>Net Periodic Benefit Cost</b>	<b>\$ 271</b>	<b>\$ 65</b>	<b>\$ 129</b>	<b>\$ 315</b>	<b>\$ 57</b>	<b>\$ 104</b>

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

	U.S. Pension	Non-U.S. Pension	Other Post- Retirement	U.S. Pension	Non-U.S. Pension	Other Post- Retirement
Discount Rate	4.03%	3.42%	4.12%	4.22%	3.85%	4.30%
Expected Long-Term Return on Plan Assets	5.00%	7.72%	7.72%	5.00%	6.90%	6.90%
Rate of Compensation Increase	3.00%	3.41%	3.08%	3.00%	2.98%	3.03%

(In thousands, except percentages)	Nine Months Ended September 30, 2017			Nine Months Ended October 1, 2016		
	U.S. Pension	Non-U.S. Pension	Other Post- Retirement	U.S. Pension	Non-U.S. Pension	Other Post- Retirement
<b>Components of Net Periodic Benefit Cost:</b>						
Service cost	\$ 514	\$ 100	\$ 131	\$ 543	\$ 77	\$ 99
Interest cost	923	78	127	954	78	114
Expected return on plan assets	(994)	(27)	(1)	(966)	(19)	(1)
Recognized net actuarial loss	331	28	62	372	29	36
Amortization of prior service cost	40	4	66	42	4	67
Settlement loss	—	—	—	—	—	114
<b>Net Periodic Benefit Cost</b>	<b>\$ 814</b>	<b>\$ 183</b>	<b>\$ 385</b>	<b>\$ 945</b>	<b>\$ 169</b>	<b>\$ 429</b>

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

	U.S. Pension	Non-U.S. Pension	Other Post- Retirement	U.S. Pension	Non-U.S. Pension	Other Post- Retirement
Discount Rate	4.03%	3.43%	4.12%	4.22%	3.88%	4.28%
Expected Long-Term Return on Plan Assets	5.00%	7.72%	7.72%	5.00%	6.90%	6.90%
Rate of Compensation Increase	3.00%	3.42%	3.07%	3.00%	2.98%	3.02%

The Company made cash contributions of \$810,000 to its U.S. noncontributory defined benefit pension plan in the first nine months of 2017 and expects to make cash contributions of \$270,000 over the remainder of 2017. For the remaining pension and post-retirement benefit plans, no material cash contributions other than to fund current benefit payments are expected in 2017.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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## 9. 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 condensed 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 accumulated other comprehensive items (AOCI), net of tax, in the accompanying condensed consolidated balance sheet are as follows:

(In thousands)	Foreign Currency Translation Adjustment	Unrecognized Prior Service Cost on Pension and Other Post- Retirement Benefit Plans	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	21,196	(115)	(78)	51	21,054
Reclassifications from AOCI	—	70	275	41	386
Net current period other comprehensive income (loss)	21,196	(45)	197	92	21,440
Balance at September 30, 2017	<u>\$ (19,898)</u>	<u>\$ (442)</u>	<u>\$ (7,961)</u>	<u>\$ 104</u>	<u>\$ (28,197)</u>
Balance at January 2, 2016	\$ (27,932)	\$ (489)	\$ (8,322)	\$ (229)	\$ (36,972)
Other comprehensive loss before reclassifications	(283)	(1)	(575)	(265)	(1,124)
Reclassifications from AOCI	—	71	361	364	796
Net current period other comprehensive (loss) income	(283)	70	(214)	99	(328)
Balance at October 1, 2016	<u>\$ (28,215)</u>	<u>\$ (419)</u>	<u>\$ (8,536)</u>	<u>\$ (130)</u>	<u>\$ (37,300)</u>

Amounts reclassified from AOCI are as follows:

(In thousands)	Three Months Ended		Nine Months Ended		Statement of Income Line Item
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016	
<b>Pension and Other Post-Retirement Plans: (a)</b>					
Amortization of actuarial losses	\$ (142)	\$ (145)	\$ (421)	\$ (551)	SG&A expenses
Amortization of prior service costs	(38)	(38)	(110)	(113)	SG&A expenses
Total expense before income taxes	(180)	(183)	(531)	(664)	
Income tax benefit	63	64	186	232	Provision for income taxes
	(117)	(119)	(345)	(432)	
<b>Cash Flow Hedges: (b)</b>					
Interest rate swap agreements	(8)	(21)	(26)	(157)	Interest expense
Forward currency-exchange contracts	—	—	—	(24)	Revenues
Forward currency-exchange contracts	(26)	(113)	(37)	(182)	Cost of revenues
Total expense before income taxes	(34)	(134)	(63)	(363)	
Income tax benefit (provision)	11	47	22	(1)	Provision for income taxes
	(23)	(87)	(41)	(364)	
Total Reclassifications	<u>\$ (140)</u>	<u>\$ (206)</u>	<u>\$ (386)</u>	<u>\$ (796)</u>	

(a) Included in the computation of net periodic benefit cost. See Note 8 for additional information.

(b) See Note 10 for additional information.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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## 10. 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 determines 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.

Accounting Standards Codification (ASC) 815, *Derivatives and Hedging*, requires that all derivatives be recognized in the accompanying condensed consolidated 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 accompanying condensed consolidated statement of income 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 accompanying condensed consolidated statement of income.

### *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 is included in other assets, with an offset to AOCI, net of tax, in the accompanying condensed 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 is 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 the Company is 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. As of September 30, 2017, the Company was in compliance with these covenants. The unrealized gain associated with the 2015 Swap Agreement was \$65,000 as of September 30, 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 12 months or less.

**KADANT INC.**  
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**10. Derivatives (continued)**

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.

In the second quarter of 2017, the Company entered into forward currency-exchange contracts associated with the anticipated consideration to be paid for the acquisition of NII and recognized a loss of \$1,754,000 associated with these transactions. The Company recognized within SG&A expenses in the accompanying condensed consolidated statement of income a gain of \$109,000 and a loss of \$120,000 in the third quarters of 2017 and 2016, respectively, and losses of \$1,384,000 and \$556,000 in the first nine months of 2017 and 2016, respectively, associated with its forward currency-exchange contracts that were not designated as hedges, including the contracts related to the NII acquisition. 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 value of the associated derivative contracts, and the location of these instruments in the accompanying condensed consolidated balance sheet:

(In thousands)	Balance Sheet Location	September 30, 2017		December 31, 2016	
		Asset (Liability) (a)	Notional Amount (b)	Asset (Liability) (a)	Notional Amount
<b>Derivatives Designated as Hedging Instruments:</b>					
<b>Derivatives in an Asset Position:</b>					
Forward currency-exchange contracts	Other Current Assets	\$ 88	\$ 950	\$ —	\$ —
Interest rate swap agreement	Other Long-Term Assets	\$ 65	\$ 10,000	\$ 62	\$ 10,000
<b>Derivatives in a Liability Position:</b>					
Forward currency-exchange contracts	Other Current Liabilities	\$ —	\$ —	\$ (41)	\$ 2,380
<b>Derivatives Not Designated as Hedging Instruments:</b>					
<b>Derivatives in an Asset Position:</b>					
Forward currency-exchange contracts	Other Current Assets	\$ 8	\$ 2,169	\$ 2	\$ 227
<b>Derivatives in a Liability Position:</b>					
Forward currency-exchange contracts	Other Current Liabilities	\$ (4)	\$ 886	\$ (237)	\$ 17,185

(a) See Note 11 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 the first nine months of 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.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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**10. Derivatives (continued)**

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 nine months ended September 30, 2017:

(In thousands)	Interest Rate Swap Agreement	Forward Currency- Exchange Contracts	Total
Unrealized Gain (Loss), Net of Tax, at December 31, 2016	\$ 40	\$ (28)	\$ 12
Loss reclassified to earnings (a)	17	24	41
(Loss) gain recognized in AOCI	(15)	66	51
Unrealized Gain, Net of Tax, at September 30, 2017	<u>\$ 42</u>	<u>\$ 62</u>	<u>\$ 104</u>

(a) See Note 9 for the income statement classification.

As of September 30, 2017, the Company expects to reclassify \$64,000 of the net unrealized gains included in AOCI to earnings over the next twelve months.

**11. 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.

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 September 30, 2017			
	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Money market funds and time deposits	\$ 15,829	\$ —	\$ —	\$ 15,829
Forward currency-exchange contracts	\$ —	\$ 96	\$ —	\$ 96
Interest rate swap agreement	\$ —	\$ 65	\$ —	\$ 65
Banker's acceptance drafts (a)	\$ —	\$ 16,687	\$ —	\$ 16,687
<b>Liabilities:</b>				
Forward currency-exchange contracts	\$ —	\$ 4	\$ —	\$ 4
(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 condensed consolidated balance sheet.

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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**11. Fair Value Measurements and Fair Value of Financial Instruments (continued)**

The Company uses the market approach technique to value its financial assets and liabilities, and there were no changes in valuation techniques during the first nine months of 2017. The Company's financial assets and liabilities carried at fair value are cash equivalents, banker's acceptance drafts, 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)	September 30, 2017		December 31, 2016	
	Carrying Value	Fair Value	Carrying Value	Fair Value
<b>Long-term Debt Obligations:</b>				
Revolving credit facility	\$ 273,577	\$ 273,577	\$ 61,494	\$ 61,494
Capital lease obligations	4,115	4,115	3,857	3,857
Other borrowings	399	399	417	417
	<u>\$ 278,091</u>	<u>\$ 278,091</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.

**12. Business Segment 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.

(In thousands)	Three Months Ended		Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
<b>Revenues:</b>				
Papermaking Systems	\$ 111,135	\$ 96,078	\$ 295,416	\$ 280,436
Wood Processing Systems	39,714	7,962	61,050	25,437
Fiber-based Products	1,945	1,479	9,427	8,012
	<u>\$ 152,794</u>	<u>\$ 105,519</u>	<u>\$ 365,893</u>	<u>\$ 313,885</u>
<b>Income Before Provision for Income Taxes:</b>				
Papermaking Systems (a)	\$ 21,544	\$ 16,915	\$ 52,932	\$ 44,747
Wood Processing Systems (b)	4,418	2,150	6,196	5,406
Corporate and Fiber-based Products (c)	(6,504)	(6,504)	(16,181)	(15,255)
Total operating income	19,458	12,561	42,947	34,898
Interest expense, net	(1,188)	(251)	(1,722)	(739)
	<u>\$ 18,270</u>	<u>\$ 12,310</u>	<u>\$ 41,225</u>	<u>\$ 34,159</u>

**KADANT INC.**  
Notes to Condensed Consolidated Financial Statements  
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**12. Business Segment Information (continued)**

(In thousands)	Three Months Ended		Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
<b>Capital Expenditures:</b>				
Papermaking Systems	\$ 3,790	\$ 1,632	\$ 6,567	\$ 3,341
Other	1,493	211	2,151	238
	<u>\$ 5,283</u>	<u>\$ 1,843</u>	<u>\$ 8,718</u>	<u>\$ 3,579</u>

(In thousands)	September 30, 2017	December 31, 2016
	<b>Total Assets:</b>	
Papermaking Systems	\$ 492,071	\$ 407,538
Wood Processing Systems	259,487	52,407
Other (d)	36,101	10,746
	<u>\$ 787,659</u>	<u>\$ 470,691</u>

(a) Includes \$278,000, and \$593,000 of acquisition-related expenses in the three- and nine-month periods ended September 30, 2017, respectively.

Includes \$114,000 and \$3,491,000 of acquisition-related expenses in the three- and nine-month periods ended October 1, 2016, respectively.

Acquisition-related expenses include acquisition transaction costs and amortization of acquired profit in inventory and backlog.

(b) Includes \$4,625,000 and \$8,727,000 of acquisition-related expenses in the three- and nine-month periods ended September 30, 2017, respectively.

(c) Corporate primarily includes general and administrative expenses.

(d) Primarily includes Corporate and Fiber-based Products' cash and cash equivalents and property, plant and equipment.

**13. Commitments and Contingencies**
*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 outstanding accounts receivable. These banker's acceptance drafts are noninterest-bearing 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. As of September 30, 2017 and December 31, 2016, the Company had \$11,222,000 and \$4,824,000, respectively, 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.

*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.

## Item 2 – Management's Discussion and Analysis of Financial Condition and Results of Operations

This Quarterly Report on Form 10-Q includes forward-looking statements that 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 our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (fiscal 2016), as filed with the Securities and Exchange Commission (SEC) and subsequent filings with the SEC.

### **Overview**

#### *Company Background*

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. We believe our large installed base provides us with a spare parts and consumables business that yields higher margins than our capital equipment business. In the first nine months of 2017, approximately 61% of our revenue was from the sale of parts and consumables products.

On August 14, 2017, we acquired certain assets of Unaflex, LLC (Unaflex) for approximately \$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.

On July 5, 2017, we acquired the forest products business of NII FPG Company (NII) pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for approximately \$170.7 million, net of cash acquired, which includes a post-closing adjustment of \$2.1 million received subsequent to the end of the third quarter. NII 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 also designs and manufactures harvesting equipment used in cutting, gathering, and removing timber from forest plantations. This acquisition extends our presence deeper into the forest products industry and complements our existing Wood Processing Systems segment.

Our operations are comprised of two reportable operating segments: Papermaking Systems and Wood Processing Systems, and a separate product line, Fiber-based Products, as detailed below.

## Overview (continued)

### *Papermaking Systems Segment*

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. This segment consists of the following product lines:

- Stock-Preparation: custom-engineered systems and equipment, as well as standard individual components, for baling, pulping, de-inking, screening, cleaning, and refining primarily recyclable fibers; balers and related equipment used in the processing of recyclable and waste materials; and filtering, recausticizing, and evaporation equipment and systems used in the production of virgin pulp;
- Doctoring, Cleaning, & Filtration: doctoring 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, belts, 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; and
- Fluid-Handling: rotary joints, expansion joints, precision unions, steam and condensate systems, components, and controls used in industrial piping systems to efficiently transfer fluid, power, and data.

### *Wood Processing Systems Segment*

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. We also provide refurbishment and repair of pulping equipment for the pulp and paper industry. Our principal wood-processing products include:

- Strandere: disc and ring stranders and related parts and consumables that cut batch-fed logs into strands for OSB production;
- Debarkers: ring and rotary debarkers and related parts and consumables that employ a combination of mechanical abrasion and log-to-log contact to efficiently remove bark from logs of all shapes and species;
- Chippers: disc, drum, and veneer chippers and related parts and consumables that are high quality, robust chipper systems for waste-wood and whole-log applications found in pulp woodrooms, chip plants, and sawmill and planer mill sites; and
- Logging machinery: feller bunchers, log loaders, and swing yarders that are used to harvest and gather timber for lumber production.

### *Fiber-based Products*

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.

### *International Sales*

During the first nine months of 2017 and 2016, approximately 64% and 59%, respectively, of our sales were to customers outside the United States, principally in Europe and Asia. 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.

**Overview (continued)***Application of Critical Accounting Policies and Estimates*

Management's discussion and analysis of financial condition and results of operations is based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The preparation of these condensed 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 condensed 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 in "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the section captioned "Application of Critical Accounting Policies and Estimates" in Part II, Item 7, of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC. There have been no material changes to these critical accounting policies since fiscal year-end 2016 that warrant disclosure.

*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.

In the first nine months of 2017, approximately 56% of our revenue was from the sale of products that support packaging, tissue, and other paper production, other than printing and writing and newsprint paper grades. 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. 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. In the first nine months of 2017, 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.

In the first nine months of 2017, 17% of our revenue was from sales to engineered wood panel producers, sawmills, and other manufacturers in the forest products industry who 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 residential housing construction and 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. The remainder of our revenue was from sales to other process industries, which tend to grow with the overall economy.

Our bookings increased 43% to \$135 million in the third quarter of 2017 compared to \$95 million in the third quarter of 2016. Third quarter bookings in 2017 included a \$20 million, or 22%, increase resulting from the acquisitions of the businesses of NII and Unaflex and a \$2 million, or 2%, increase from the favorable effects of foreign currency translation. Excluding the impact of the acquisitions and foreign currency translation, our bookings in the third quarter of 2017 increased 19% compared to the third quarter of 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. Demand for our parts and consumables products tends to be more predictable. Bookings for our parts and consumables products increased to \$81 million in the third quarter of 2017, or 60% of total bookings, compared to \$64 million, or 67% of total bookings, in the third quarter of 2016, primarily due to bookings of \$14 million from the NII and Unaflex businesses.

**Overview (continued)**

The largest and most impactful regional market for our products in the third quarter of 2017 was North America, and we expect this will continue to be the case for the remainder of 2017. 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 NII acquisition. Our bookings in North America were \$60 million in the third quarter of 2017, up 28% compared to \$47 million in the third quarter of 2016, including bookings of \$13 million from the NII and Unaflex businesses. According to Resource Information Systems Inc. (RISI) reports, U.S. demand for corrugated boxes remained relatively strong in 2017 with year-to-date average-week shipments up more than 3%. As a result, containerboard production in the first nine months of 2017 increased 3% compared to the same period in 2016 and containerboard mill operating rates were robust at 97% through the first nine months of 2017. U.S. housing starts in September 2017 were at a seasonally adjusted annual rate of 1.127 million, or 6.1% above the September 2016 rate, according to the U.S. Census Bureau. Continued growth in housing starts is expected to have a positive impact on demand for structural wood panels, which includes OSB, and lumber.

We saw increased business activity in Europe in the third quarter of 2017 compared to the third quarter of 2016, particularly in the lumber, industrial and packaging segments. We expect the overall economy to be stable in Europe for the remainder of 2017 and our markets have shown strength in the first nine months of the year. Our bookings in Europe were \$40 million in the third quarter of 2017, up 29% compared to \$31 million in the third quarter of 2016, including a \$4 million increase from NII and a favorable foreign currency translation effect of \$2 million. Excluding NII and the favorable effect of foreign currency translation, our bookings in Europe were up 12%.

Our bookings in Asia were \$24 million in the third quarter of 2017, up 128% compared to \$11 million in the third quarter of 2016. The market in Asia continues to be quite strong for both our capital and parts and consumables products. We saw continued strength in project activity in containerboard grades during the third quarter of 2017, particularly in China, which has had strong bookings throughout 2017. The most recent RISI outlook for containerboard demand in China forecasts growth rates of approximately 3% per year for the next few years. New capacity additions in China are forecasted to exceed this growth rate over the next several years due in part to the closure of smaller, less efficient mills as the result of both increased governmental regulatory actions and competitive factors.

Our bookings in the rest of the world were \$12 million in the third quarter of 2017, up 74% compared to \$7 million in the third quarter of 2016, including bookings of \$4 million from NII.

We expect full year 2017 GAAP diluted earnings per share (EPS) of \$3.56 to \$3.60, revised from our previous guidance of \$3.18 to \$3.26. The revised guidance includes pre-tax acquisition costs of \$5.0 million, or \$0.38 per diluted share, and pre-tax amortization expense associated with acquired profit in inventory and backlog of \$6.6 million, or \$0.43 per diluted share. For 2017, we expect revenue of \$509 to \$512 million, revised from our previous guidance of \$488 to \$494 million. For the fourth quarter of 2017, we expect to achieve GAAP diluted EPS of \$0.87 to \$0.91 on revenue of \$143 to \$146 million, including \$0.15 of amortization expense associated with acquired profit in inventory and backlog.

**Results of Operations**Third Quarter 2017 Compared With Third Quarter 2016*Revenues*

The following table presents changes in revenues by segment and product line between the third quarters of 2017 and 2016, and the changes in revenues by segment and product line between the third quarters of 2017 and 2016 excluding the effect of currency translation and acquisitions. Currency translation is calculated by converting third quarter of 2017 revenues in local currency into U.S. dollars at the third quarter of 2016 exchange rates and then comparing this result to actual revenues in the third quarter of 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.

**Results of Operations (continued)**

Revenues for the third quarters of 2017 and 2016 are as follows:

(In thousands)	Three Months Ended		Total Increase	Currency Translation	Acquisitions	(Non-GAAP) Adjusted Total Increase
	September 30, 2017	October 1, 2016				
Stock-Preparation	\$ 52,065	\$ 44,099	\$ 7,966	\$ 1,061	\$ —	\$ 6,905
Doctoring, Cleaning, & Filtration	30,538	28,955	1,583	454	—	1,129
Fluid-Handling	28,532	23,024	5,508	616	2,522	2,370
Papermaking Systems	111,135	96,078	15,057	2,131	2,522	10,404
Wood Processing Systems	39,714	7,962	31,752	510	26,668	4,574
Fiber-based Products	1,945	1,479	466	—	—	466
	<u>\$ 152,794</u>	<u>\$ 105,519</u>	<u>\$ 47,275</u>	<u>\$ 2,641</u>	<u>\$ 29,190</u>	<u>\$ 15,444</u>

**Papermaking Systems Segment**

Revenues from our Papermaking Systems Segment increased \$15.0 million, or 16%, to \$111.1 million in the third quarter of 2017 from \$96.1 million in the third quarter of 2016, and included \$2.5 million in revenues from Unaflex, which was acquired on August 14, 2017, and a \$2.1 million increase from the favorable effect of foreign currency translation. Excluding the Unaflex acquisition and favorable effect of foreign currency translation, revenues increased \$10.4 million, or 11%, as explained in the product line discussions below.

Revenues from our Stock-Preparation product line in the third quarter of 2017 increased \$8.0 million, or 18%, compared to the third quarter of 2016, and included a \$1.1 million increase from the favorable effect of foreign currency translation. Excluding the favorable effect of foreign currency translation, revenues increased \$6.9 million, or 16%, primarily due to increases in demand for our capital equipment at our Chinese and European operations.

Revenues from our Doctoring, Cleaning, & Filtration product line in the third quarter of 2017 increased \$1.6 million, or 5%, compared to the third quarter of 2016. Excluding a favorable effect of foreign currency translation of \$0.5 million, revenues increased \$1.1 million, or 4%, compared to the third quarter of 2016 due to increases in demand in all regions for our parts and consumables products and for our capital equipment at our Chinese operations. These increases were partially offset by decreases in demand for our capital equipment at our European and North American operations.

Revenues from our Fluid-Handling product line in the third quarter of 2017 increased \$5.5 million, or 24%, compared to the third quarter of 2016, including \$2.5 million in revenues from Unaflex. Excluding the Unaflex acquisition and a favorable effect of foreign currency translation of \$0.6 million, revenues increased \$2.4 million, or 10%, compared to the third quarter of 2016, due to increases in demand for our products in all our major geographic markets.

**Wood Processing Systems Segment**

Revenues from our Wood Processing Systems Segment increased \$31.7 million to \$39.7 million in the third quarter of 2017 from \$8.0 million in the third quarter of 2016, including \$26.7 million in revenues from NII, which was acquired on July 5, 2017, and a favorable effect from foreign currency translation of \$0.5 million. Excluding the NII acquisition and favorable effect of foreign currency translation, revenues increased \$4.6 million, or 57%, primarily due to increased demand for our products as a result of the strength of the U.S. housing industry.

**Fiber-based Products**

Revenues from our Fiber-based Products business increased \$0.4 million, or 32%, to \$1.9 million in the third quarter of 2017 from \$1.5 million in the third quarter of 2016, primarily due to increased demand for our biodegradable granular products.

**Results of Operations (continued)**
*Gross Profit Margin*

Gross profit margins for the third quarters of 2017 and 2016 are as follows:

	Three Months Ended	
	September 30, 2017	October 1, 2016
Gross Profit Margin:		
Papermaking Systems	45.5%	46.0%
Wood Processing Systems	33.5%	45.9%
Fiber-based Products	35.7%	15.0%
	42.3%	45.6%

*Papermaking Systems Segment.* The gross profit margin in our Papermaking Systems segment decreased to 45.5% in the third quarter of 2017 from 46.0% in the third quarter of 2016 due to lower gross profit margins on our capital products and, to a lesser extent, an increase in the proportion of lower-margin capital revenues compared to the third quarter of 2016.

*Wood Processing Systems Segment.* The gross profit margin in our Wood Processing Systems segment decreased to 33.5% in the third quarter of 2017 from 45.9% in the third quarter of 2016 primarily due to the amortization of \$3.3 million of acquired profit in inventory related to the NII acquisition, which lowered gross profit margin by 820 basis points, and a change in product mix to an increased proportion of lower-margin capital revenues compared to the third quarter of 2016.

*Fiber-based Products.* The gross profit margin in our Fiber-based Products business increased to 35.7% in the third quarter of 2017 from 15.0% in the third quarter of 2016 due to the combined effects of increased revenues in the third quarter of 2017 and increased manufacturing efficiency related to higher production volumes.

*Operating Expenses*

Selling, general, and administrative (SG&A) expenses as a percentage of revenues was 28% in the third quarter of 2017 compared to 32% in the third quarter of 2016. SG&A expenses increased \$9.0 million, or 27%, to \$42.5 million in the third quarter of 2017 from \$33.5 million in the third quarter of 2016, primarily due to \$5.8 million from the inclusion of SG&A expenses from NII and Unaflex and \$1.4 million of incremental acquisition-related expenses. This increase also included a \$0.6 million increase from the unfavorable effect of foreign currency translation.

Total stock-based compensation expense was \$1.5 million and \$1.3 million in the third quarters of 2017 and 2016, respectively, and is included in SG&A expenses in the accompanying condensed consolidated statement of income.

Research and development (R&D) expenses increased \$0.6 million, or 32%, to \$2.6 million in the third quarter of 2017 from \$2.0 million in the third quarter of 2016, primarily due to the inclusion of R&D expenses from NII, and represented 2% of revenues in both periods.

*Interest Expense*

Interest expense increased \$1.0 million to \$1.3 million in the third quarter of 2017 from \$0.3 million in the third quarter of 2016 related to interest expense on additional borrowings in 2017 primarily due to the acquisitions.

*Provision for Income Taxes*

Our provision for income taxes was \$4.9 million and \$3.1 million in the third quarters of 2017 and 2016, respectively, and represented 27% and 25% of pre-tax income. The effective tax rate of 27% in the third quarter of 2017 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings, offset in part by an increase in tax related to non-deductible expenses and unrecognized tax benefits. The effective tax rate of 25% in the third quarter of 2016 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings, a partial release of the U.S. valuation allowance related to state net operating losses, and a partial benefit of current-year state losses. These benefits were offset in part by an increase in tax related to non-deductible expenses.

**Results of Operations (continued)**
*Net Income*

Net income increased \$4.2 million to \$13.4 million in the third quarter of 2017 from \$9.2 million in the third quarter of 2016 due to a \$6.9 million increase in operating income that was partially offset by increases in our provision for income taxes of \$1.8 million and interest expense of \$1.0 million (see *Revenues, Gross Profit Margin, Operating Expenses, Interest Expense and Provision for Income Taxes* discussed above).

First Nine Months 2017 Compared With First Nine Months 2016
*Revenues*

The following table presents changes in revenues by segment and product line between the first nine months of 2017 and 2016, and the changes in revenues by segment and product line between the first nine months of 2017 and 2016 excluding the effect of currency translation and acquisitions. Currency translation is calculated by converting the first nine months of 2017 revenues in local currency into U.S. dollars at the first nine months of 2016 exchange rates and then comparing this result to actual revenues in the first nine months of 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.

Revenues for the first nine months of 2017 and 2016 are as follows:

(In thousands)	Nine Months Ended		Total Increase	Currency Translation	Acquisitions	(Non-GAAP) Adjusted Total Increase (Decrease)
	September 30, 2017	October 1, 2016				
Stock-Preparation	\$ 139,396	\$ 132,158	\$ 7,238	\$ (675)	\$ 13,311	\$ (5,398)
Doctoring, Cleaning, & Filtration	82,921	80,374	2,547	(749)	—	3,296
Fluid-Handling	73,099	67,904	5,195	(54)	2,522	2,727
Papermaking Systems	295,416	280,436	14,980	(1,478)	15,833	625
Wood Processing Systems	61,050	25,437	35,613	358	26,668	8,587
Fiber-based Products	9,427	8,012	1,415	—	—	1,415
	<u>\$ 365,893</u>	<u>\$ 313,885</u>	<u>\$ 52,008</u>	<u>\$ (1,120)</u>	<u>\$ 42,501</u>	<u>\$ 10,627</u>

*Papermaking Systems Segment*

Revenues from our Papermaking Systems Segment increased \$15.0 million to \$295.4 million in the first nine months of 2017 from \$280.4 million in the first nine months of 2016, including \$13.3 million of revenues in the first quarter of 2017 from the PAALGROUP (PAAL), which was acquired in April 2016, and \$2.5 million in revenues from Unaflex, which was acquired on August 14, 2017, offset in part by a \$1.5 million decrease from the unfavorable effect of foreign currency translation. Excluding the acquisitions and unfavorable effect of foreign currency translation, revenues increased \$0.6 million as explained in the product line discussions below.

Revenues from our Stock-Preparation product line in the first nine months of 2017 increased \$7.2 million, or 5%, compared to the first nine months of 2016, including \$13.3 million of revenues in the first quarter of 2017 from PAAL, which was acquired in April 2016, that were offset in part by a \$0.7 million decrease from the unfavorable effect of foreign currency translation. Excluding the incremental PAAL revenues and unfavorable effect of foreign currency translation, revenues decreased \$5.4 million, or 4%, compared to the first nine months of 2016, primarily due to decreases in demand for our products at both our North American and European operations, which were partially offset by an increase in demand for our products at our Chinese operations.

**Results of Operations (continued)**

Revenues from our Doctoring, Cleaning, & Filtration product line in the first nine months of 2017 increased \$2.5 million, or 3%, including a \$0.8 million decrease from the unfavorable effect of foreign currency translation. Excluding the unfavorable effect of foreign currency translation, revenues increased \$3.3 million, or 4%, compared to the first nine months of 2016 due to increased demand for our products at our European and Chinese operations, offset in part by decreased demand for our capital equipment at our South American operations.

Revenues from our Fluid-Handling product line in the first nine months of 2017 increased \$5.2 million, or 8%, compared to the first nine months of 2016, including \$2.5 million in revenues from Unaflex, and a \$0.1 million decrease from the unfavorable effect of foreign currency translation. Excluding the Unaflex acquisition and unfavorable effect of foreign currency translation, revenues increased \$2.7 million, or 4%, due to increased demand for our parts and consumables products primarily at our European and North American operations, offset in part by decreased demand for our capital equipment primarily at our North American operations.

*Wood Processing Systems Segment*

Revenues from our Wood Processing Systems Segment increased \$35.6 million to \$61.0 million in the first nine months of 2017 from \$25.4 million in the first nine months of 2016, including \$26.7 million in revenues from NII, which was acquired on July 5, 2017, and an increase of \$0.4 million from the favorable effect of foreign currency translation. Excluding the NII acquisition and favorable effect of foreign currency translation, revenues increased \$8.6 million, or 34%, 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 \$1.4 million, or 18%, to \$9.4 million in the first nine months of 2017 from \$8.0 million in the first nine months of 2016, primarily due to increased demand for our biodegradable granular products.

*Gross Profit Margin*

Gross profit margins for the first nine months of 2017 and 2016 are as follows:

	Nine Months Ended	
	September 30, 2017	October 1, 2016
Gross Profit Margin:		
Papermaking Systems	47.1%	45.7%
Wood Processing Systems	37.1%	41.7%
Fiber-based Products	50.1%	45.7%
	45.5%	45.3%

*Papermaking Systems Segment.* The gross profit margin in our Papermaking Systems segment increased to 47.1% in the first nine months of 2017 from 45.7% in the first nine months of 2016. This increase was primarily due to higher margins on our parts and consumables products and, to a lesser extent, an increase 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 37.1% in the first nine months of 2017 from 41.7% in the first nine months of 2016 due to the amortization of \$3.3 million of acquired profit in inventory related to the NII acquisition, which lowered gross profit margin by 530 basis points.

*Fiber-based Products.* The gross profit margin in our Fiber-based Products business increased to 50.1% in the first nine months of 2017 from 45.7% in the first nine months of 2016 due to the combined effects of increased revenues in the first nine months of 2017 and increased manufacturing efficiency related to higher production volumes.

**Results of Operations (continued)***Operating Expenses*

SG&A expenses as a percentage of revenues was 32% in both the first nine months of 2017 and 2016. SG&A expenses increased \$14.4 million, or 14%, to \$116.5 million in the first nine months of 2017 from \$102.1 million in the first nine months of 2016, primarily due to \$5.8 million from the inclusion of SG&A expenses from NII and Unaflex, \$2.7 million of incremental acquisition-related expenses, and \$3.1 million of first quarter 2017 SG&A expenses from PAAL, which was acquired in April 2016. These increases were offset in part by a \$0.6 million decrease from the favorable effect of foreign currency translation.

Total stock-based compensation expense was \$4.3 million and \$3.9 million in the first nine months of 2017 and 2016, respectively, and is included in SG&A expenses in the accompanying condensed consolidated statement of income.

R&D expenses increased \$1.4 million, or 24%, to \$7.0 million in the first nine months of 2017 from \$5.6 million in the first nine months of 2016, primarily due to \$0.6 million from the inclusion of R&D expenses from NII and \$0.4 million of first quarter 2017 R&D expenses from PAAL, which was acquired in April 2016, and represented 2% of revenues in both periods.

*Other Income*

Other income in the first nine months of 2016 represents 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 \$1.1 million to \$2.0 million in the first nine months of 2017 from \$0.9 million in the first nine months of 2016 related to interest expense on additional borrowings in 2017 primarily due to the acquisitions.

*Provision for Income Taxes*

Our provision for income taxes was \$10.6 million and \$9.5 million in the first nine months of 2017 and 2016, respectively, and represented 26% and 28% of pre-tax income. The effective tax rate of 26% in the first nine months of 2017 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings and the net excess income tax benefits from stock-based compensation arrangements, offset in part by an increase in tax related to non-deductible expenses and unrecognized tax benefits. The effective tax rate of 28% in the first nine months of 2016 was lower than our statutory tax rate primarily due to the distribution of our worldwide earnings, the adoption of a new accounting standard that resulted in a favorable adjustment for the net excess income tax benefits from stock-based compensation arrangements, a partial release of the U.S. valuation allowance related to state net operating losses, and a partial benefit of current-year state losses. These items were offset in part by an increase in tax related to non-deductible expenses.

*Net Income*

Net income increased \$6.0 million to \$30.7 million in the first nine months of 2017 compared to \$24.7 million in the first nine months of 2016 due to an \$8.0 million increase in our operating income that was partially offset by increases of \$1.1 million in both our provision for income taxes and interest expense (see *Revenues, Gross Profit Margin, Operating Expenses, Interest Expense and Provision for Income Taxes* discussed above).

*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 Financial Accounting Standards Board (FASB) issued Accounting Standards Update (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 analysis of transactions to determine when and how revenue is recognized. The ASU will replace most existing revenue recognition guidance in GAAP when it becomes effective. 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 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

**Results of Operations (continued)**

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. These new ASUs are effective for us beginning in fiscal 2018. Early adoption is permitted in fiscal 2017.

We are continuing to assess the potential effects of these ASUs on our condensed consolidated financial statements, business processes, systems and controls. We are analyzing our current contracts and comparing our current accounting policies and practices pertaining to revenue recognition to those required under the new ASUs to identify potential differences. Based on procedures performed to date, we have identified certain contracts that would likely be impacted by applying the new revenue standard. These include contracts that are currently accounted for under the completed-contract method of accounting and contracts for products that are specific to the customer's requirements. We recognize revenue for long-term contracts under the completed-contract method of accounting when the contract is substantially complete, the product is delivered and, if applicable, customer acceptance criteria is met. Contracts that contain customer-specific components and do not meet the requirements for percentage of completion method of accounting are accounted for when the risks and rewards of ownership have transferred, provided all other revenue recognition criteria are met. Under the new guidance, revenue related to such contracts will be accelerated if the "over time" criteria are met.

We are still in the process of evaluating these contracts and other types of contracts and quantifying the expected impact that the standard will have on our financial statements and related disclosures. While the assessment process is ongoing, we currently anticipate adopting these ASUs using the modified retrospective transition approach. Under this approach, this guidance would apply 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 our current revenue recognition practices would be recognized using a cumulative effect adjustment to the opening balance of retained earnings. The amount of this adjustment is yet to be determined and will be impacted by many factors including the number and value of contracts in progress at the transition date, the nature and composition of contracts in progress at the transition date, the terms of the respective contracts in progress at the transition date and the relevant accounting conclusions on each of these contracts in progress at the transition date. We are also in the process of developing and implementing appropriate changes to our business processes, systems and controls to support the recognition criteria and disclosure requirements of these ASUs.

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

**Liquidity and Capital Resources**

Consolidated working capital was \$174.6 million at September 30, 2017, compared with \$118.4 million at December 31, 2016. Included in working capital were cash and cash equivalents of \$90.6 million at September 30, 2017, compared with \$71.5 million at December 31, 2016. At September 30, 2017, \$62.5 million of cash and cash equivalents was held by our foreign subsidiaries.

*First Nine Months of 2017*

Our operating activities provided cash of \$32.3 million in the first nine months of 2017. Working capital used cash of \$14.4 million in the first nine months of 2017, including increases of \$16.2 million in accounts receivable primarily related to increased capital shipments in the third quarter, \$3.5 million in inventories primarily related to purchases associated with the expected shipment of Stock-Preparation capital orders in the fourth quarter of 2017 and the first half of 2018, \$2.6 million in unbilled contract costs and fees primarily in our Stock-Preparation product line, and \$2.5 million in other current assets largely related to an increase in refundable income taxes. Partially offsetting these uses of cash were increases of \$8.4 million in other current liabilities primarily related to an increase in billings in excess of costs and fees connected with large orders at our Stock-Preparation product line and \$2.0 million in accounts payable related to purchases of inventory.

Our investing activities used cash of \$212.8 million in the first nine months of 2017, including the use of \$204.2 million for acquisitions and \$8.7 million for purchases of property, plant, and equipment.

**Liquidity and Capital Resources (continued)**

Our financing activities provided cash of \$191.9 million in the first nine months of 2017. We borrowed \$222.0 million under our 2017 Credit Agreement (as defined below under the heading *Revolving Credit Facility*), including \$70.7 million of Canadian dollar-denominated and \$61.8 million of euro-denominated borrowings. These borrowings were partially offset by \$20.3 million used for principal payments on our outstanding debt obligations, \$6.7 million used for cash dividends paid to stockholders, \$2.2 million used for tax withholding payments related to stock-based compensation, and \$1.3 million used for the payment of debt issuance costs.

*First Nine Months of 2016*

Our operating activities provided cash of \$34.7 million in the first nine months of 2016. Working capital used cash of \$4.2 million in the first nine months of 2016, including decreases of \$5.6 million in accounts payable due to reduced project activity in our Stock-Preparation product line and \$6.7 million in other current liabilities primarily related to income tax and incentive compensation payments and a decrease in billings in excess of costs and fees. These uses of cash were offset in part by \$5.4 million of cash provided by decreases in accounts receivable and unbilled contract costs and fees primarily in our Stock-Preparation product line, and \$2.1 million from a decrease in inventory primarily due to the shipment of Stock-Preparation orders in the third quarter of 2016.

Our investing activities used cash of \$59.8 million in the first nine months of 2016 primarily related to the acquisition of PAAL for approximately \$56.6 million in cash, net of cash acquired. In addition, we used \$3.6 million for purchases of property, plant, and equipment.

Our financing activities provided cash of \$24.0 million in the first nine months of 2016. We received cash proceeds of \$48.0 million from borrowings, of which \$29.9 million was used to fund the PAAL acquisition, and \$1.8 million from the issuance of our common stock due to the exercise of employee stock options. These sources of cash were offset in part by \$15.4 million used for principal payments on our outstanding debt obligations in the first nine months of 2016, \$6.0 million used for cash dividends paid to stockholders, and \$2.6 million used for tax withholding payments related to stock-based compensation. In addition, we paid \$1.1 million of contingent consideration in the first nine months of 2016 related to a prior period acquisition.

*Additional Liquidity and Capital Resources*

On May 17, 2017, our board of directors approved the repurchase by us 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 \$6.7 million in the first nine months of 2017. On September 20, 2017, we declared a quarterly cash dividend of \$0.21 per outstanding share of our common stock, which will be paid on November 9, 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 2017 Credit Agreement.

It is our intent to reinvest indefinitely the earnings of our international subsidiaries in order to support the current and future capital needs of their operations, including debt repayments. We do not anticipate the need to repatriate funds to the United States to satisfy domestic liquidity needs arising in the ordinary course of business. Through September 30, 2017, we have not provided for U.S. income taxes on approximately \$229.1 million of unremitted foreign earnings. The U.S. tax cost has not been determined due to the fact that it is not practicable to estimate at this time. The related foreign tax withholding, which would be required if we were to remit the foreign earnings to the U.S., would be approximately \$3.4 million.

On July 5, 2017, we acquired the forest products business of NII pursuant to a Stock and Asset Purchase Agreement dated May 24, 2017, for approximately \$170.7 million, net of cash acquired, which includes a post-closing adjustment of \$2.1 million that was received subsequent to the end of the third quarter. On August 14, 2017, we acquired certain assets of Unaflex for approximately \$31.3 million in cash, subject to a post-closing adjustment.

We plan to make expenditures of approximately \$9.0 to \$10.0 million during the remainder of 2017 for property, plant, and equipment.

## Liquidity and Capital Resources (continued)

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 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 (as amended, the "2017 Credit Agreement"), 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.

In the first nine months of 2017, we borrowed an aggregate \$222.0 million under the 2017 Credit Agreement. As of September 30, 2017, the outstanding balance under the 2017 Credit Agreement was \$273.6 million, including \$90.4 million of euro-denominated and \$66.6 million of Canadian dollar-denominated borrowings. As of September 30, 2017, we had \$26.4 million of borrowing capacity available under our 2017 Credit Agreement, which is calculated by translating its foreign-denominated borrowings using transaction date foreign exchange rates.

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. As of September 30, 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.

### *Sale-Leaseback Financing Arrangement*

In connection with the acquisition of PAAL in April 2016, we assumed a sale-leaseback financing arrangement for PAAL's facility in Germany. Under this arrangement, the quarterly lease payment includes principal and interest based on an interest rate which is reset, from time to time, to prevailing short-term borrowing rates in Germany. The interest rate at September 30, 2017 was 1.70%. The lease arrangement includes a net fixed price purchase option of \$1.6 million at the end of the lease term in 2022. At September 30, 2017, \$4.5 million was outstanding under this capital lease obligation.

**Liquidity and Capital Resources (continued)***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.

As of September 30, 2017, the 2015 Swap Agreement had an unrealized gain of \$65,000. 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.

The counterparty to the 2015 Swap Agreement could demand an early termination of the 2015 Swap Agreement if we are 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 are 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. The unrealized gain of \$65,000 associated with the 2015 Swap Agreement as of September 30, 2017 represents the estimated amount that we would receive from the counterparty in the event of an early termination.

Item 3 – Quantitative and Qualitative Disclosures About Market Risk

Our exposure to market risk from changes in interest rates and foreign currency exchange rates has not changed materially from our exposure at fiscal year-end 2016 as disclosed in Item 7A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC, except for the interest rate and foreign currency risk associated with the \$273.6 million in borrowings at September 30, 2017 under our revolving credit facility. In the first nine months of 2017, we entered into \$70.7 million of Canadian dollar-denominated borrowings and \$61.8 million of euro-denominated borrowings. We also have outstanding \$22.6 million from euro-denominated borrowings made in 2016. 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 \$15.7 million as of September 30, 2017. Our borrowings under the revolving credit facility are subject to interest rate risk as they bear variable rates of interest, which adjust quarterly. A 10% increase in interest rates associated with our borrowings outstanding at September 30, 2017 would have the effect of increasing our annual interest expense by approximately \$0.2 million.

**Item 4 – Controls and Procedures****(a) 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 as of September 30, 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 as of September 30, 2017, our Chief Executive Officer and Chief Financial Officer concluded that as of September 30, 2017, our disclosure controls and procedures were effective at the reasonable assurance level.

**(b) 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 September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**PART II – OTHER INFORMATION****Item 1A – Risk Factors**

There have been no material changes from the risk factors disclosed in Part I, Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and subsequent filings, filed with the SEC.

Item 6 – Exhibits

Exhibit Number	Description of Exhibit
10.1	<a href="#">Executive Transition Agreement between the Registrant and Sandra L. Lambert as of September 20, 2017.</a>
10.2	<a href="#">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.</a>
10.3	<a href="#">Notice dated September 20, 2017 of the amendment to certain restricted stock unit award agreements granted by the Registrant to Sandra L. Lambert.</a>
31.1	<a href="#">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.</a>
31.2	<a href="#">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.</a>
32	<a href="#">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.</a>
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.*
101.PRE	XBRL Taxonomy Presentation Linkbase Document.*
101.DEF	XBRL Taxonomy Definition Linkbase Document.*

\* Submitted electronically herewith.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Condensed Consolidated Balance Sheet at September 30, 2017 and December 31, 2016, (ii) Condensed Consolidated Statement of Income for the three- and nine-month periods ended September 30, 2017 and October 1, 2016, (iii) Condensed Consolidated Statement of Comprehensive Income for the three- and nine-month periods ended September 30, 2017 and October 1, 2016, (iv) Condensed Consolidated Statement of Cash Flows for the nine-month periods ended September 30, 2017 and October 1, 2016, (v) Condensed Consolidated Statement of Stockholders' Equity for the nine-month periods ended September 30, 2017 and October 1, 2016, and (vi) Notes to Condensed Consolidated Financial Statements.

**KADANT INC.**

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized as of the 8th day of November 2017.

KADANT INC.

/s/ Michael J. McKenney

Michael J. McKenney

Senior Vice President and Chief Financial Officer  
(Principal Financial Officer)

## EXECUTIVE TRANSITION AGREEMENT

THIS EXECUTIVE TRANSITION AGREEMENT (this “*Agreement*”) by and between KADANT INC., a Delaware corporation (the “*Company*”), and Sandra L. Lambert (the “*Executive*”) is made as of September 20, 2017.

WHEREAS, the Company and the Executive desire to provide for an orderly transition to the Executive’s successor as General Counsel (“*General Counsel*”), to provide an incentive for the Executive to stay an employee through the transition period and to obtain certain assurances and cooperation of the Executive post-employment; and

WHEREAS, in connection with the foregoing, the Company and the Executive wish to set forth the terms of such transition in this Agreement;

NOW, THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Company and the Executive agree as follows:

1. Employment.

1.1 Except as hereinafter otherwise provided, the Company shall employ the Executive on a full-time basis as a Vice President of the Company through July 1, 2018, at which date her employment will end unless it is sooner terminated as provided herein (such date when employment ends shall be referred to as the “*Separation Date*”). In addition, during her employment, the Executive shall hold the title of General Counsel of the Company through a date to be determined by the Chief Executive Officer of the Company (“*CEO*”) in his sole discretion by written notice to the Executive, which date shall be no later than July 1, 2018 (the “*General Counsel Transition Date*”).

1.2 In addition to carrying out the regular duties of her positions, the Executive shall work under the direction of and on such matters as may be reasonably assigned to her by the CEO. Such duties may include, but shall not be limited to, the advancement of the business and interests of the Company, providing for an orderly transition of the role and responsibilities of the general counsel of the Company to a successor General Counsel, consulting with the CEO or successor General Counsel as requested on legal matters related to the Company as requested by the CEO, and undertaking special assignments agreed to between the Executive and the CEO.

1.3 The Executive agrees that, during her employment, she shall, to the best of her ability, perform her duties, and shall not engage in any business, profession or occupation which would conflict with the rendering of the agreed upon services, either directly or indirectly, without the prior approval of the CEO. Nothing in this Section 1.3 shall prevent the Executive from serving on the boards of director or other advisory bodies, and no approval is required for such service after the General Counsel Transition Date, provided that the Executive complies with Section 3 of this Agreement.

2. Compensation. During the period of her employment by the Company under this Agreement and for the covenants and obligations of the Executive contained herein, the Executive shall be compensated as follows:

2.1 Except as provided in Section 2.6, (a) during the period commencing on the date of this Agreement and through December 30, 2017, the Executive shall continue to be paid a base salary at her current annual rate of \$309,000 and (b) during the period commencing on December 31, 2017 through the Separation Date, the Executive shall be paid a base salary at an annual rate at least equal to her current annual rate of \$309,000, as increased by the Compensation Committee of the Board of Directors ("**Compensation Committee**") in its sole discretion in accordance with its regular executive compensation review conducted on or before March 2018. (The base salary determined under this Section 2.1 shall be referred to hereafter as the "**Base Salary**.")

2.2 The Executive shall be eligible to participate in the Company's Cash Incentive Plan and the actual bonus earned shall be determined and calculated in accordance with the compensation practices of the Company determined as follows:

(a) for the fiscal year ending December 30, 2017 (such period referred to as the "2017 Fiscal Year"), based on her current target or reference bonus of \$142,140; and

(b) for the fiscal year ending December 29, 2018 (such period referred to as the "2018 Fiscal Year"), based on a target or reference bonus at least equal to her current target or reference bonus of \$142,140, as increased by the Compensation Committee in its sole discretion in accordance with its regular executive compensation review conducted on or before March 2018, with the bonus for the 2018 Fiscal Year prorated through the Separation Date (and not payable if the Executive ceases to be employed before July 1, 2018 other than on a termination that satisfies Section 4.5 below).

Any bonus payable to the Executive under the Cash Incentive Plan shall be determined and paid in accordance with the terms of the Cash Incentive Plan in the same manner and at the same time as other executive officers of the Company, but in no event later than March 15 of the fiscal year following the fiscal year for which the bonus is payable.

2.3 The Compensation Committee has approved revisions to the Executive's outstanding restricted stock unit awards to provide that any amounts that would otherwise vest after March 10, 2018 (if employment continued) shall be fully vested and result in a distribution of the shares of Company common stock underlying such restricted stock unit awards as soon as practicable following the Separation Date but no later than March 10, 2019, provided that the Executive has remained an employee of the Company until July 1, 2018 or her termination otherwise satisfies Section 4.1(e) below (subject in either case to providing an effective release, except where the vesting is caused by the Executive's death, on the terms set forth in Section 4.5(e) and the last paragraph of Section 4.5). For the avoidance of doubt, the termination of the Executive's employment with the Company on the Separation Date qualifies as a "retirement" under her outstanding stock option award agreements, which status provides that the optionee may exercise vested stock options for up to two years after such retirement event. For other

purposes, the Executive's restricted stock unit awards shall continue to be governed by the terms of the applicable plans and agreements, and her stock options will continue to be governed by the terms of the applicable plans and agreements while the options remain outstanding. In addition, the Executive acknowledges and agrees that, in the event that the Compensation Committee grants restricted stock unit awards to executive officers in March 2018, any such award granted to the Executive shall be equal in value to 1/3 the comparable value of restricted stock unit awards as determined in accordance with the past practice of the Compensation Committee for the position of General Counsel of the Company. Any such restricted stock unit awards granted in March 2018 shall be time-based and the underlying shares (but only to the extent vested by the Separation Date or vesting under the same terms as the first sentence of this Section 2.3, with any remaining unvested amounts forfeited) shall be distributable as provided above.

2.4 The Executive shall be reimbursed for any and all monies expended by her in connection with her employment for reasonable and necessary expenses on behalf of the Company in accordance with the policies of the Company then in effect.

2.5 The Executive shall (a) be eligible to participate in the Company's executive and employee benefit plans and arrangements that are offered to executive officers and employees of the Company (including, without limitation, retirement, supplemental executive retirement plan ("**SERP**"), medical insurance, dental insurance, life insurance and disability benefits), to the extent she remains eligible to do so under the terms of such plans and to the extent that the Company continues such plans for its executive officers and employees, (b) continue to accrue vacation through the Separation Date (which shall accrue in accordance with the Company's vacation policy), and (c) continue to receive the same perquisites that are generally provided to other executive officers of the Company, subject to the provisions of this Agreement.

2.6 If, because of adverse business conditions or for other reasons, the Company at any time puts into effect salary reductions applicable to all executive officers of the Company generally, the salary payments required to be made under this Agreement to the Executive during any period in which such general reduction is in effect may be reduced by the same percentage as is applicable to all executive officers of the Company generally. Any benefits made available to the Executive which are related to Base Salary shall also be reduced in accordance with any salary reduction.

2.7 Through the Assistance and Compliance Period (as defined below), the Executive shall comply with all of the Company's policies and procedures in effect at such time in connection with the maintenance of the Company's property. She shall return any company car, if applicable, no later than the Separation Date but may retain her laptop and other personal computing devices and files and other documents for the remainder of the Assistance and Compliance Period.

2.8 The Executive acknowledges that she has received notice from the Company that her Amended and Restated Executive Retention Agreement, dated as of December 9, 2008 (the "**Executive Retention Agreement**") will not be renewed and agrees that it will cease to be applicable to her as of the close of business on December 31, 2017.

3. Restrictive Covenants.

3.1 During the period of the Executive's employment with the Company and for a period of two years following the Separation Date, the Executive shall not, directly or indirectly, own, manage, control, operate, be employed by, participate in or be connected with the ownership, management, operation or control of any business which competes with the Company or any of its affiliated companies; provided, however, that the foregoing shall not apply to ownership of less than 5% of the outstanding stock of a publicly held corporation, which ownership is disclosed to the CEO, nor shall it apply to any other relationship which is disclosed to and approved by the CEO.

3.2 During the period of the Executive's employment with the Company and for a period of two years following the Separation Date, the Executive shall not, either alone or in association with others, solicit, divert or take away, or attempt to divert or take away, the business or patronage of any of the clients, customers or business partners of the Company that were contacted, solicited or served by the Company during the 12-month period prior to the Separation Date.

3.3 During the period of the Executive's employment with the Company and for a period of two years following the Separation Date, the Executive shall not, either alone or in association with others, (a) solicit, induce or attempt to induce any employee of the Company to terminate his or her employment with the Company or (b) hire, recruit or attempt to hire any person who was employed by the Company at any time during the term of the Executive's employment with the Company, provided that this clause (b) shall not apply to the recruitment or hiring of any individual whose employment with the Company has been terminated for a period of six months or longer.

3.4 During the period of the Executive's employment with the Company and thereafter, the Executive shall not, without the written consent of the Company, utilize or disclose to others any proprietary or confidential information of any type or description, which terminology shall be construed to mean any information developed or identified by the Company that is intended to give it an advantage over its competitors or that could give a competitor an advantage if obtained by it, unless and until such confidential information has become public knowledge through no fault of the Executive. Such information includes, but is not limited to, product or process design, specifications, manufacturing methods, financial or statistical information about the Company, marketing or sales information about the Company, sources of supply, lists of customers and the Company's plans, strategies and contemplated actions. The Executive shall not disclose any proprietary or confidential information to others outside the Company or use the same for any unauthorized purposes without written approval by an executive officer of the Company, either during or at any time after employment, unless and until such proprietary or confidential information has become public knowledge without fault by the Executive. Nothing in this Agreement or elsewhere prohibits the Executive from reporting possible violations of state or federal law or regulation to any governmental entity, or making other disclosures that are protected under the whistleblower provisions of state or federal law or regulation. The Executive is not required to notify the Company that she has made any such reports or disclosures; provided, however, that nothing herein authorizes the disclosure of information she obtained through a communication that was subject to the attorney-client

privilege. In addition, pursuant to the Defend Trade Secrets Act: “An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order.”

3.5 During the period of the Executive’s employment by the Company and for a period of two years following the Separation Date, the Executive shall not in any way whatsoever aid or assist any party seeking to cause, initiate or effect a Change in Control of the Company without the prior approval of the Board of Directors.

3.6 Nothing in this Agreement is intended to be or shall serve as a restriction on the Executive’s conduct that would violate the Massachusetts Rules of Professional Conduct relating to the Executive’s right to practice law, provided that nothing in this Agreement shall be deemed to limit or waive the Executive’s professional duties and responsibilities under such Rules of Professional Conduct, including, but not limited to, those arising from the Executive’s service as a lawyer for the Company, its subsidiaries and affiliates and including, but not limited to, duties and responsibilities relating to maintaining client confidences, limitations on the use of client information and prohibitions on conflicts of interest.

#### 4. Termination.

4.1 Except for the covenants set forth in Section 3, which covenants shall remain in effect for the periods stated therein, and subject to the satisfaction of the provisions of this Agreement that require payments or the provision of benefits after the termination of this Agreement, this Agreement and her employment shall terminate on the earliest of the following events:

(a) on the effective date set forth in any resignation submitted by the Executive and accepted by the Company, or if no effective date is agreed upon, the date of receipt of such letter;

(b) upon the death of the Executive;

(c) at the election of the Company, upon the Disability of the Executive. For purposes of this Agreement, “**Disability**” shall mean the Executive’s absence from the performance of the Executive’s duties with the Company for 180 consecutive calendar days as a result of incapacity due to mental or physical illness which is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to the Executive or the Executive’s legal representative;

(d) upon the termination of the Executive by the Company for Cause. For purposes of this Agreement, “**Cause**” shall mean the Executive’s failure to substantially

perform her obligations under this Agreement, or the Executive's willful engagement in illegal conduct or gross misconduct that is materially and demonstrably injurious to the Company, provided that no act or failure to act by the Executive shall be considered "willful" unless it is done, or omitted to be done, in bad faith and without reasonable belief that the Executive's action or omission was in the best interests of the Company; or

(e) on July 1, 2018, provided the Executive has remained an employee through such date, or upon other termination of the Executive's employment by the Company without Cause or as a result of her death, in either case occurring after December 31, 2017 and before July 1, 2018.

4.2 Except as otherwise expressly provided herein, upon the termination of this Agreement, all of the Company's obligations under this Agreement (except for obligations that by their terms require payment after the termination of this Agreement), including, without limitation, making payments to the Executive, shall immediately cease and terminate.

4.3 Notwithstanding the foregoing, in the event of the termination of this Agreement pursuant to Section 4.1(a) or (d), the Company shall pay to the Executive, in a lump sum in cash within 30 days after the Separation Date, an amount equal to the sum of (a) the Executive's previously unpaid Base Salary through the Separation Date, (b) the Executive's annual bonus payable (including any bonus or portion thereof which has been earned but deferred) to the Executive for the most recently completed fiscal year (if such bonus has not yet been paid); provided that, notwithstanding the foregoing, such annual bonus need not be paid within the 30-day period as long as such annual bonus is paid at the same time as to other executive officers of the Company and not later than March 15 of the fiscal year following the fiscal year for which the bonus is payable, and (c) the amount of any compensation previously deferred by the Executive (together with any accrued interest or earnings thereon) (but not to the extent that payment on such timing would be an impermissible acceleration under Section 409A, as defined below) and any accrued vacation pay, in each case to the extent not previously paid (the sum of the amounts described in clauses (a), (b) and (c) shall be hereinafter referred to as the "**Accrued Obligations**").

4.4 Notwithstanding the foregoing, in the event of the termination of this Agreement pursuant to (x) Section 4.1(b) on or before December 31, 2017, (y) Section 4.1(c), or (z) a termination without Cause on or before December 31, 2017, the Company shall (a) pay to the Executive (or the Executive's estate, if applicable), in a lump sum in cash within 30 days after the Separation Date (or such other date as is required by applicable law, including Section 409A), the Accrued Obligations and (b) pay to the Executive (or the Executive's estate, if applicable), in a lump sum in cash within 30 days after the Separation Date, an amount equal to the product of (i) the Executive's target or reference bonus for the fiscal year in which this Agreement is terminated and (ii) a fraction, the numerator of which is the number of days in the current fiscal year through the Separation Date, and the denominator of which is 365 (the "**Pro-Rated Bonus**").

4.5 The terms of this Section 4.5 are intended to provide an incentive in the form of a stay bonus and related benefits for the Executive to remain employed until July 1, 2018 or upon the earlier termination by the Company under Section 4.1(e) and to provide post-

employment assistance as provided in Section 6 with respect to the transitioning of her responsibilities. Continued payments are further conditioned on the Executive's compliance with Sections 3 and 6. Notwithstanding Section 4.2, in the event of the termination of this Agreement pursuant to Section 4.1(e) on or after January 1, 2018 and, other than as a result of a termination of employment by death, contingent upon the effectiveness of the Release (as defined below), the Company shall:

(a) in the event the Separation Date is before July 1, 2018, pay to the Executive a sum equal to (i) the Base Salary that the Executive would have received pursuant to this Agreement had the Executive remained an employee from the Separation Date through July 1, 2018; (ii) the maximum 401(k) plan matching contribution payable by the Company prorated for the period from the Separation Date through July 1, 2018 (to the extent not otherwise paid or provided); (iii) the present value of the incremental benefit (as determined by the Company's plan actuaries) to the Executive under the Company's defined benefit plan and SERP, in each case that the Executive would have received under such plans had the Executive continued to be a participant in such plans for the period from the Separation Date through July 1, 2018; and (iv) an amount equal to the executive perquisites payable or provided to the Executive (to the extent not otherwise paid or provided) prorated for the period from the Separation Date through July 1, 2018, including but not limited to the executive car allowance or other benefits being provided to the Executive as of the Separation Date; provided that such sum shall be paid in equal monthly installments from the Separation Date through July 1, 2018 in accordance with the Company's normal payroll processing (payments being suspended from the Separation Date until the first payroll beginning after the irrevocability of the Release (or such later date as required by the last paragraph of this Section 4.5), with any suspended payments added to the first payroll);

(b) pay to the Executive a monthly cash payment of \$41,500 for nine months beginning July 2018 to be paid on the first payroll of each month in accordance with the Company's normal payroll processing;

(c) pay to the Executive the Executive's actual bonus for the 2018 Fiscal Year, paid as in the last sentence of Section 2.2 but without proration (but net of any amount paid under Section 2.2);

(d) provided she timely elects and remains eligible for benefits continuation pursuant to the federal "COBRA" laws, payment by the Company of COBRA premiums for dual family coverage under the group health and dental insurance coverage (less her portion of the premiums she would have paid as an active employee, which shall be deducted from the sum payable under Section 4.5(b)) for a period from the Separation Date to June 30, 2019 (with any later COBRA coverage being at her expense), provided that any such payments and related coverage shall be discontinued in the event that she ceases to be eligible for or to elect such COBRA coverage during such period. Such payments by the Company (but not eligible coverage at the Executive's expense) will cease if future regulations or legislation causes the Company to conclude such payments are reasonably likely to result in any tax liability to the Company; provided that the Company will reimburse the Executive for her own payments under this sentence (less the portion she would have paid as an active employee) if the Company cannot pay them directly and if permitted under

applicable law without tax liability to the Company. The Executive must repay promptly to the Company any premiums paid under this subsection if she does not comply with the final paragraph of this Section 4.5 within the time period specified and no premiums will be paid after the deadline for such compliance if she has not so complied; and

(e) cause each of the Executive's outstanding restricted stock unit awards that would have vested on or after March 10, 2018 to vest on the Separation Date and be distributed on the dates provided in such awards as amended by Section 2.3 of this Agreement (and with respect to performance-based restricted stock units, if the Separation Date occurs prior to the measurement date for such awards, the Executive agrees that such performance-based restricted stock units awards will be measured and adjusted to the same extent as if the Executive had remained an employee of the Company through the measurement date to determine the number of shares deliverable under such awards), provided that no shares will be issued under such restricted stock unit awards that would have vested on or after March 10, 2018 pursuant to this subsection unless the Executive complies with the final paragraph of this Section 4.5 within the time period specified and such restricted stock unit awards shall immediately expire if the Executive does not comply with the final paragraph of this Section 4.5 within the time period specified.

The provision to the Executive of the benefits provided by clauses (a) through (e) of this Section 4.5 shall be contingent upon the execution by the Executive of a release (the "**Release**") in a reasonable form provided by the Company (within five business days following the Separation Date) and the Release's becoming irrevocable no later than 60 days (or such shorter period as the Company specifies) after the Separation Date, and the Executive must repay promptly to the Company any payments made pursuant to clauses (a) through (e) if she does not comply with the final paragraph of this Section 4.5 within the time period specified. Payments contingent on the Release shall be paid no earlier than the first business day of the calendar year following the year of termination of employment if the 60-day period ends in such subsequent year. Payments that are triggered before or by death will continue to be paid after death.

5. Mitigation. The Executive shall not be required to mitigate the amount of any payment or benefits provided for by this Agreement by seeking other employment or otherwise. Further the amount of any payment or benefits provided for in this Agreement shall not be reduced by any compensation earned by the Executive as a result of employment by another employer, by retirement benefits, by offset against any amount claimed to be owed by the Executive to the Company or otherwise.

6. Post-Employment Assistance; Cooperation. On and after the Separation Date, the Executive agrees to cooperate with the Company in providing reasonable assistance as requested by the Company with respect to the transitioning of her work and further agrees that she will be available to the Company for these purposes or any other purposes reasonably requested by the Company through June 30, 2019 (the "**Assistance and Compliance Period**"). This assistance (the "**Post-Employment Assistance**") is expected to include availability to answer questions regarding the operation of the Company and, if necessary, to attend meetings. The time commitment for this purpose will be limited to less than 20% of the average level of bona fide services the Executive performed over the 36 months preceding the Separation Date, with no extra compensation, except as otherwise permitted under Section 409A (such as when the further

services were not reasonably anticipated at the Separation Date). The Company shall, to the extent practicable, provide the Executive with advance (via email and/or phone) notice of any assistance it requires from her during the Assistance and Compliance Period and shall endeavor to reasonably accommodate her personal and potential new employment schedule in requesting such assistance. In addition, if practical, the Executive may offer her assistance during non-business hours (evenings and weekends) and doing so would not be a violation of this Section 6.

In addition, the Executive agrees to cooperate fully with the Company in the investigation, defense or prosecution of any claims or actions in existence when her employment ends or that may be brought in the future against or on behalf of the Company by any third party against the Company or by the Company against any third party. The Executive also agrees that her full cooperation in connection with such claims or actions will include being available to meet with the Company's counsel to prepare for discovery, any mediation, arbitration, trial, administrative hearing or other proceeding, and to act as a witness when requested by the Company at reasonable times and locations designated by the Company. Moreover, unless otherwise prohibited by law, the Executive agrees to notify the General Counsel (or the CEO in the absence of a General Counsel) of the Company at One Technology Park Drive, Westford, Massachusetts 01886, if she is asked by any person, entity or agency (other than a governmental agency) to assist, testify or provide information in any such proceeding or investigation. Such notice shall be in writing and sent by overnight mail to the General Counsel or CEO within two business days of the time the Executive receives the request for assistance, testimony or information. If the Executive is not legally permitted to provide such notice, the Executive agrees that she will request that the person, entity or agency seeking assistance, testimony or information provide notice consistent with this Section 6.

7. Payments Subject to Section 409A. Subject to the provisions in this Section 7, any severance payments or benefits under this Agreement shall begin only upon the date of the Executive's "**separation from service**" (determined as set forth below) which occurs on or after the date of termination of the Executive's employment. The following rules shall apply with respect to distribution of the payments and benefits, if any, to be provided to the Executive under this Agreement:

7.1 It is intended that each installment of the severance payments and benefits provided under this Agreement shall be treated as a separate "payment" for purposes of Section 409A of the Internal Revenue Code of 1986, as amended (the "**Code**"), and the guidance issued thereunder ("**Section 409A**"). Neither the Company nor the Executive shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A.

7.2 If, as of the date of the Executive's "separation from service" from the Company, the Executive is not a "**specified employee**" (within the meaning of Section 409A), then each installment of the severance payments and benefits shall be made on the dates and terms set forth in this Agreement.

7.3 If, as of the date of the Executive's "separation from service" from the Company, the Executive is a "specified employee" (within the meaning of Section 409A), then:

(a) Each installment of the severance payments and benefits due under this Agreement that, in accordance with the dates and terms set forth herein, will be paid within the Short-Term Deferral Period (as hereinafter defined) shall be treated as a short-term deferral within the meaning of Treasury Regulation §1.409A-1(b)(4) to the maximum extent permissible under Section 409A. For purposes of this Agreement, the “**Short-Term Deferral Period**” means the period ending on the later of the fifteenth day of the third month following the end of the Executive’s tax year in which the separation from service occurs and the fifteenth day of the third month following the end of the Company’s tax year in which the separation from service occurs; and

(b) Each installment of the severance payments and benefits due under this Agreement that is not described in Section 7.3(a) and that would, absent this Section 7.3(b), be paid within the six-month period following the Executive’s “separation from service” from the Company shall not be paid until the date that is six months and one day after such separation from service (or, if earlier, the Executive’s death), with any such installments that are required to be delayed being accumulated during the six-month period and paid in a lump sum on the date that is six months and one day following the Executive’s separation from service and any subsequent installments, if any, being paid in accordance with the dates and terms set forth herein; provided, however, that the preceding provisions of this sentence shall not apply to any installment of severance payments and benefits if and to the maximum extent that such installment is deemed to be paid under a separation pay plan that does not provide for a deferral of compensation by reason of the application of Treasury Regulation §1.409A-1(b)(9)(iii) (relating to separation pay upon an involuntary separation from service). Any installments that qualify for the exception under Treasury Regulation §1.409A-1(b)(9)(iii) must be paid no later than the last day of the Executive’s second taxable year following the taxable year in which the separation from service occurs.

7.4 The determination of whether and when the Executive’s separation from service from the Company has occurred shall be made in a manner consistent with, and based on the presumptions set forth in, Treasury Regulation §1.409A-1(h). Solely for purposes of this Section 7.4, the “**Company**” shall include all persons with whom the Company would be considered a single employer under Sections 414(b) and 414(c) of the Code.

7.5 All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A to the extent that such reimbursements or in-kind benefits are subject to Section 409A, including, where applicable, the requirements that (a) any reimbursement is for expenses incurred during the Executive’s lifetime (or during a shorter period of time specified in this Agreement), (b) the amount of expenses eligible for reimbursement during a calendar year may not affect the expenses eligible for reimbursement in any other calendar year, (c) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred and (d) the right to reimbursement is not subject to set off or liquidation or exchange for any other benefit.

7.6 This Agreement is intended to comply with the provisions of Section 409A and the Agreement shall, to the extent practicable, be construed in accordance therewith. The Company makes no representation or warranty and shall have no liability to the

Executive or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A and do not satisfy an exemption from, or the conditions of, Section 409A.

8. Disputes.

8.1 Settlement of Disputes; Arbitration. All claims by the Executive for benefits under this Agreement shall be directed to and determined by the Board of Directors of the Company and shall be in writing. Any denial by the Board of Directors of a claim for benefits under this Agreement shall be delivered to the Executive in writing and shall set forth the specific reasons for the denial and the specific provisions of this Agreement relied upon. The Board of Directors shall afford a reasonable opportunity to the Executive for a review of the decision denying a claim. Any further dispute or controversy arising under or in connection with this Agreement (including the arbitrability of the dispute or controversy) shall be settled exclusively by arbitration in Boston, Massachusetts, in accordance with the rules of the American Arbitration Association then in effect and the Federal Arbitration Act. Judgment may be entered on the arbitrator's award in any court having jurisdiction.

8.2 Expenses. Except with respect to any claim or contest regarding the validity or enforceability of, or liability under, Section 3, the Company agrees to pay as incurred, to the full extent permitted by law, all legal, accounting and other fees and expenses which the Executive may reasonably incur as a result of any claim or contest (regardless of the outcome thereof) by the Company, the Executive or others regarding the validity or enforceability of, or liability under, any provision of this Agreement or any guarantee of performance thereof (including as a result of any contest by the Executive regarding the amount of any payment or benefits pursuant to this Agreement), plus in each case interest on any delayed payment at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Code.

9. Successors.

9.1 Successor to Company. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform this Agreement to the same extent that the Company would be required to perform it if no such succession had taken place. As used in this Agreement, the "**Company**" shall mean the Company as defined above and any successor to its business or assets as aforesaid which assumes and agrees to perform this Agreement, by operation of law or otherwise.

9.2 Successor to Executive. This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If the Executive should die while any amount would still be payable to the Executive or the Executive's family hereunder if the Executive had continued to live, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to the executors, personal representatives or administrators of the Executive's estate. Neither the Executive nor, in the event of her death, the executors, personal representatives or administrators of the Executive's estate, shall have the power to transfer, assign, mortgage or otherwise encumber in advance any of the payments

provided for in this Agreement, nor shall any payments nor assets or funds of the Company be subject to seizure for the payment of any debts, judgments, liabilities, bankruptcy or other actions.

10. Notice. All notices, instructions and other communications given hereunder or in connection herewith shall be in writing. Any such notice, instruction or communication shall be sent either (a) by registered or certified mail, return receipt requested, postage prepaid, or (b) prepaid via a reputable nationwide overnight courier service, in each case addressed to the Company, Attention: CEO, at One Technology Park Drive, Westford, Massachusetts 01886 and to the Executive at the Executive's principal residence as currently reflected on the Company's records (or to such other address as either the Company or the Executive may have furnished to the other in writing in accordance herewith). Any such notice, instruction or communication shall be deemed to have been delivered five business days after it is sent by registered or certified mail, return receipt requested, postage prepaid, or one business day after it is sent via a reputable nationwide overnight courier service. Either party may give any notice, instruction or other communication hereunder using any other means, but no such notice, instruction or other communication shall be deemed to have been duly delivered unless and until it actually is received by the party for whom it is intended.

11. Miscellaneous.

11.1 Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

11.2 Injunctive Relief. The Company and the Executive agree that any breach of this Agreement by the Company or the Executive is likely to cause the other party substantial and irrevocable damage and therefore, in the event of any such breach, in addition to such other remedies which may be available, the Company or the Executive, as applicable, shall have the right to specific performance and injunctive relief.

11.3 Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the internal laws of the Commonwealth of Massachusetts, without regard to conflicts of law principles.

11.4 Waivers. No waiver by the Company or the Executive at any time of any breach of, or compliance with, any provision of this Agreement to be performed by the other party shall be deemed a waiver of that or any other provision at any subsequent time.

11.5 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original but both of which together shall constitute one and the same instrument.

11.6 Tax Withholding. Any payments provided for hereunder shall be paid net of any applicable tax withholding required under federal, state or local law.

11.7 Entire Agreement. Except with respect to the Executive Retention Agreement, which shall remain in full force and effect through December 31, 2017, and any non-

disclosure or invention assignment agreement entered into between the Company and the Executive and the Executive's equity compensation awards (as amended herein) and their related plans, this Agreement sets forth the entire agreement of the parties hereto in respect of the subject matter contained herein and supersedes all prior agreements, promises, covenants, arrangements, communications, representations or warranties, whether oral or written, by any officer, employee or representative of any party hereto in respect of the subject matter contained herein, and any prior agreement of the parties hereto in respect of the subject matter contained herein is hereby terminated and cancelled.

11.8 Amendments. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Executive.

*[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above.

KADANT INC.

By: /s/ Jonathan W. Painter  
Jonathan W. Painter  
President and Chief Executive Officer

EXECUTIVE

/s/ Sandra L. Lambert  
Sandra L. Lambert

September 20, 2017

Ms. Sandra L. Lambert  
149 College Road  
Concord, MA 01742

**Executive Retention Agreement**

**Re: Notice of Termination of**

Dear Ms. Lambert:

Reference is hereby made to the Amended and Restated Executive Retention Agreement dated as of December 9, 2008 by and between you, as the Executive, and Kadant Inc., as the Company (the "Executive Retention Agreement"). Capitalized terms used but not defined in this Notice shall have the meanings ascribed thereto in the Executive Retention Agreement.

Pursuant to Section 2 of the Executive Retention Agreement, the Company hereby provides notice that the Term of the Executive Retention Agreement will not be extended and shall expire on December 31, 2017. As a consequence, the Executive Retention Agreement will cease to be applicable to you as of the close of business on December 31, 2017.

Sincerely,

/s/Jonathan W. Painter

Jonathan W. Painter  
President and Chief Executive Officer

**KADANT INC.**  
**NOTICE OF AMENDMENT TO**  
**RESTRICTED STOCK UNIT AWARD AGREEMENTS**

1. This amendment is effective as of September 20, 2017 with respect to the Restricted Stock Unit Award Agreements granted to the Recipient named below on the dates specified (the “Agreements”) and has been authorized and approved by the Compensation Committee of the Board of Directors of Kadant Inc. (the “Company”).

Recipient: **Sandra L. Lambert**

Performance-based RSU Award Agreement dated: March 8, 2016

Time-based RSU Award Agreement dated: March 8, 2016

Performance-based RSU Award Agreement dated: March 8, 2017

Performance-based RSU Award Agreement dated: March 8, 2017

2. The following paragraph is added to (i) the end of Section 3(a) of the Performance-based RSU Award Agreements specified above in Section 1 and (ii) the end of Section 3 of the Time-based RSU Award Agreement specified above in Section 1:

“Reference is hereby made to the Executive Transition Agreement dated as of September 20, 2017 by and between you and the Company (the “Executive Transition Agreement”). Notwithstanding anything to the contrary in this Award Agreement, any Award Shares that would otherwise vest after March 10, 2018 (if employment continued) shall be fully vested and result in a distribution of the Award Shares as soon as practicable following the Separation Date (as defined in the Executive Transition Agreement) but no later than March 10, 2019 (the “Distribution Date”) provided that you have remained an employee of the Company until July 1, 2018 or your termination of employment otherwise satisfies Section 4.1(e) of the Executive Transition Agreement (subject in either case to providing an effective release, except where the vesting is caused by your death, on the terms set forth in Section 4.5(e) and the last paragraph of Section 4.5).”

3. By your signature below, you acknowledge receipt of this Notice of Amendment to the Agreements and agree that this Amendment is attached and made a part of the Agreements, effective as of the 20<sup>th</sup> day of September, 2017.

RECIPIENT

/s/ Sandra L. Lambert  
Sandra L. Lambert

CERTIFICATION

I, Jonathan W. Painter, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2017 of Kadant Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 8, 2017

/s/ Jonathan W. Painter

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Jonathan W. Painter

Chief Executive Officer

**CERTIFICATION**

I, Michael J. McKenney, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2017 of Kadant Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 8, 2017

/s/ Michael J. McKenney

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Michael J. McKenney  
Chief Financial Officer

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

Pursuant to 18 U.S.C. Section 1350, the undersigned, Jonathan W. Painter, Chief Executive Officer, and Michael J. McKenney, Chief Financial Officer, of Kadant Inc., a Delaware corporation (the "Company"), do hereby certify, to our best knowledge and belief, that:

The Quarterly Report on Form 10-Q for the period ended September 30, 2017 of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in this Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 8, 2017

/s/ Jonathan W. Painter

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Jonathan W. Painter  
Chief Executive Officer

/s/ Michael J. McKenney

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Michael J. McKenney  
Chief Financial Officer

This certification accompanies this Quarterly Report on Form 10-Q pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.