BROOKS AUTOMATION INC
Form 10-Q
August 07, 2018
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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: June 30, 2018

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 000-25434

BROOKS AUTOMATION, INC.

(Exact name of registrant as specified in its charter)

Delaware	04-3040660
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

15 Elizabeth Drive

Chelmsford, Massachusetts

(Address of principal executive offices)

01824

(Zip Code)

Registrant’s telephone number, including area code: (978) 262-2400

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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	Smaller reporting company
Emerging growth company		

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date, July 30, 2018: common stock, $0.01 par value and 70,639,354 shares outstanding.

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PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements

BROOKS AUTOMATION, INC.

CONSOLIDATED BALANCE SHEETS

(unaudited)

(In thousands, except share and per share data)

	June 30, 2018	September 30, 2017
Assets		
Current assets		
Cash and cash equivalents	$ 179,376	$ 101,622
Marketable securities	42,096	28
Accounts receivable, net	156,678	120,828
Inventories	132,298	106,395
Prepaid expenses and other current assets	31,432	23,138
Total current assets	541,880	352,011
Property, plant and equipment, net	61,537	58,462
Long-term marketable securities	10,511	2,642
Long-term deferred tax assets	46,312	1,692
Goodwill	282,205	233,638
Intangible assets, net	106,195	83,520
Equity method investment	37,074	28,593
Other assets	5,716	6,070
Total assets	$ 1,091,430	$ 766,628
Liabilities and Stockholders' Equity		
Current liabilities		
Current portion of long term debt	$ 2,000	$ —
Accounts payable	67,589	49,100
Deferred revenue	24,612	24,292
Accrued warranty and retrofit costs	8,759	8,054
Accrued compensation and benefits	25,727	27,065
Accrued restructuring costs	214	1,708
Accrued income taxes payable	7,953	11,417
Accrued expenses and other current liabilities	28,044	25,142
Total current liabilities	164,898	146,778
Long-term debt	194,470	—
Long-term tax reserves	1,430	1,687
Long-term deferred tax liabilities	6,545	3,748
Long-term pension liabilities	5,268	1,979
Other long-term liabilities	5,723	4,792
Total liabilities	378,334	158,984
Commitments and contingencies (Note 16)		

Stockholders' Equity		
Preferred stock, $0.01 par value - 1,000,000 shares authorized, no shares issued or outstanding	—	—
Common stock, $0.01 par value - 125,000,000 shares authorized, 84,096,224 shares issued and 70,634,355 shares outstanding at June 30, 2018, 83,294,848 shares issued and 69,832,979 shares outstanding at September 30, 2017	841	833
Additional paid-in capital	1,891,304	1,874,918
Accumulated other comprehensive income	18,373	15,213
Treasury stock, at cost- 13,461,869 shares	(200,956)	(200,956)
Accumulated deficit	(997,342)	(1,082,364)
Total Brooks Automation, Inc. stockholders' equity	712,220	607,644
Noncontrolling interest in subsidiary	876	—
Total stockholders' equity	713,096	607,644
Total liabilities and stockholders' equity	$ 1,091,430	$ 766,628

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

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BROOKS AUTOMATION, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(unaudited)

(In thousands, except per share data)

	Three Months Ended June 30, 2018	2017	Nine Months Ended June 30, 2018	2017
Revenue				
Products	$ 174,113	$ 141,957	$ 476,788	$ 396,684
Services	49,367	39,760	143,280	114,321
Total revenue	223,480	181,717	620,068	511,005
Cost of revenue				
Products	104,443	85,658	282,977	243,360
Services	29,816	24,487	88,426	74,606
Total cost of revenue	134,259	110,145	371,403	317,966
Gross profit	89,221	71,572	248,665	193,039
Operating expenses				
Research and development	14,177	11,958	40,501	34,148
Selling, general and administrative	48,283	40,016	136,695	109,496
Restructuring charges	82	828	131	2,663
Total operating expenses	62,542	52,802	177,327	146,307
Operating income	26,679	18,770	71,338	46,732
Interest income	689	137	1,193	432
Interest expense	(2,465)	(93)	(6,842)	(286)
Gain on settlement of equity method investment	—	—	—	1,847
Other expenses, net	(316)	(314)	(2,228)	(848)
Income before income taxes and earnings of equity method investments	24,587	18,500	63,461	47,877
Income tax provision (benefit)	3,310	3,680	(37,720)	9,900
Income before equity in earnings of equity method investments	21,277	14,820	101,181	37,977
Equity in earnings of equity method investments	1,329	2,530	4,931	7,249
Net income	22,606	17,350	106,112	45,226
Net loss attributable to noncontrolling interest	111	—	111	—
Net income attributable to Brooks Automation, Inc.	$ 22,717	$ 17,350	$ 106,223	$ 45,226
Basic net income per share	$ 0.32	$ 0.25	$ 1.51	$ 0.65
Diluted net income per share	0.32	0.25	1.50	0.64
Dividend declared per share	0.10	0.10	0.30	0.30
Weighted average shares used in computing net income per share:				
Basic	70,596	69,711	70,425	69,496
Diluted	70,978	70,405	70,933	70,198

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

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BROOKS AUTOMATION, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(unaudited)

(In thousands)

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2018	2017	2018	2017
Net income	$ 22,606	$ 17,350	$ 106,112	$ 45,226
Other comprehensive income (loss), net of tax:				
Cumulative foreign currency translation adjustments	(5,998)	4,592	3,288	(164)
Unrealized gains (losses) on marketable securities, net of tax effects of ($26) during each of the three and nine months ended June 30, 2018, and $0 during each of the three and nine months ended June 30, 2017	(122)	4	(122)	2
Actuarial gains (losses), net of tax effects of ($1) and ($3) during the three and nine months ended June 30, 2018, respectively, $0 and $5 during the three and nine months ended June 30, 2017, respectively	(3)	2	(6)	(4)
Total other comprehensive income (loss), net of tax	(6,123)	4,598	3,160	(166)
Comprehensive loss attributable to noncontrolling interest	111	—	111	—
Comprehensive income	$ 16,594	$ 21,948	$ 109,383	$ 45,060

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

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BROOKS AUTOMATION, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(unaudited)

(In thousands)

	Nine Months Ended June 30, 2018	2017
Cash flows from operating activities		
Net income	$ 106,112	$ 45,226
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	27,621	20,649
Gain on settlement of equity method investment	—	(1,847)
Stock-based compensation	14,999	11,081
Amortization of premium on marketable securities and deferred financing costs	565	24
Earnings of equity method investments	(4,931)	(7,249)
Loss recovery on insurance claim	(1,103)	—
Deferred income tax benefit	(48,274)	498
Other gains on disposals of assets	—	(106)
Changes in operating assets and liabilities, net of acquisitions:		
Accounts receivable	(32,887)	(14,644)
Inventories	(21,647)	(12,851)
Prepaid expenses and other current assets	(4,395)	(6,076)
Accounts payable	16,656	9,470
Deferred revenue	487	17,875
Accrued warranty and retrofit costs	(192)	1,299
Accrued compensation and tax withholdings	(1,252)	279
Accrued restructuring costs	(1,523)	(4,201)
Accrued expenses and other current liabilities	(7,478)	1,954
Net cash provided by operating activities	42,758	61,381
Cash flows from investing activities		
Purchases of property, plant and equipment	(9,320)	(6,827)
Purchases of marketable securities	(58,312)	(240)
Sales and maturities of marketable securities	8,450	3,590
Acquisitions, net of cash acquired	(82,977)	(5,346)
Purchases of other investments	—	(170)
Proceeds from sales of property, plant and equipment	200	—
Net cash used in investing activities	(141,959)	(8,993)
Cash flows from financing activities		
Proceeds from term loan	197,554	—
Proceeds from issuance of common stock	1,395	960
Payment of deferred financing costs	(318)	(27)
Repayment of term loan	(1,000)	—

Common stock dividends paid	(21,202)	(20,932)
Net cash provided by (used in) financing activities	176,429	(19,999)
Effects of exchange rate changes on cash and cash equivalents	526	(394)
Net increase in cash and cash equivalents	77,754	31,995
Cash and cash equivalents, beginning of period	101,622	85,086
Cash and cash equivalents, end of period	$ 179,376	$ 117,081
Supplemental disclosure of non-cash investing and financing activities:		
Purchases of property, plant and equipment included in accounts payable	$ 1,418	$ 1,009
Fair value of non-cash consideration for the acquisition of Cool Lab, LLC	—	10,348

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

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BROOKS AUTOMATION, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

1. Basis of Presentation

The unaudited consolidated financial statements of Brooks Automation, Inc. and its subsidiaries (“Brooks”, or the “Company”) included herein have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). All intercompany accounts and transactions have been eliminated in consolidation. In the opinion of management, all material adjustments, which are of a normal and recurring nature and necessary for a fair statement of the financial position and results of operations and cash flows for the periods presented, have been reflected in the accompanying unaudited consolidated financial statements. The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for the full fiscal year.

Certain information and footnote disclosures normally included in the Company’s annual consolidated financial statements have been condensed or omitted and, accordingly, the accompanying financial information should be read in conjunction with the audited consolidated financial statements and notes thereto contained in the Company’s Annual Report on Form 10 K filed with the United States Securities and Exchange Commission (the “SEC”) for the fiscal year ended September 30, 2017 (the "2017 Annual Report on Form 10 K"). The accompanying Consolidated Balance Sheet as of September 30, 2017 was derived from the audited annual consolidated financial statements as of the period then ended.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of unaudited consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the unaudited consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates are associated with accounts receivable, inventories, goodwill, intangible assets other than goodwill, long-lived assets, derivative financial instruments, deferred income taxes, warranty obligations, revenue recognized using the percentage of completion method, pension obligations and stock-based compensation expense. The Company bases its estimates on historical experience and various other assumptions, including in certain circumstances, future projections that management believes to be reasonable under the circumstances. Although the Company regularly assesses these estimates, actual results could differ from those estimates. Changes in estimates are recorded in the period in which they occur and become known.

Foreign Currency Translation

Certain transactions of the Company and its subsidiaries are denominated in currencies other than their functional currency.

Foreign currency exchange losses generated from the settlement and remeasurement of these transactions are recognized in earnings and presented within “Other expenses, net” in the Company’s unaudited Consolidated Statements of Operations. Net foreign currency transaction and remeasurement losses totaled \$0.6 million and \$0.7 million, respectively, during the three months ended June 30, 2018 and 2017, and \$3.1 million and \$1.6 million, respectively, during the nine months ended June 30, 2018 and 2017.

Derivative Instruments

The Company has transactions and balances denominated in currencies other than the U.S. dollar. Most of these transactions or balances are denominated in Euros, British Pounds and a variety of Asian currencies. The Company enters into foreign exchange contracts to reduce its exposure to currency fluctuations. The forward contract arrangements that the Company enters into, typically mature in three months or less. These transactions do not qualify for hedge accounting. Net gains and losses related to these contracts are recorded as a component of "Other expenses,

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net" in the accompanying unaudited Consolidated Statements of Operations and are as follows for the three and nine months ended June 30, 2018 and 2017 (in thousands):

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2018	2017	2018	2017
Realized gains (losses) on derivatives not designated as hedging instruments	$ 4,889	$ 147	$ (1,332)	$ (450)

The fair values of the forward contracts are recorded in the Company’s accompanying unaudited Consolidated Balance Sheets as "Prepaid expenses and other current assets" and "Accrued expenses and other current liabilities". Foreign exchange contract assets and liabilities are measured and reported at fair value based on observable market inputs and classified within Level 2 of the fair value hierarchy described below due to a lack of an active market for these contracts.

Fair Value Measurements

The Company measures at fair value certain financial assets and liabilities, including cash equivalents and available for sale securities. Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 820, Fair Value Measurement and Disclosures, establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The following levels of inputs may be used to measure fair value:

Level 1 Inputs: Quoted prices in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset and liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 Inputs: Observable inputs other than prices included in Level 1, including quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Inputs: Unobservable inputs that are significant to the fair value of the assets or liabilities and reflect an entity’s own assumptions in pricing assets or liabilities since they are supported by little or no market activity.

As of June 30, 2018, the Company had no assets or liabilities measured and recorded at fair value on a recurring basis using Level 3 inputs.

Recently Issued Accounting Pronouncements

In March 2018, the FASB issued Accounting Standard Update (“ASU”) 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, an amendment of the FASB Accounting Standards Codification. This ASU gives entities the option to reclassify tax effects recorded in accumulated other comprehensive income as a result of tax reform to retained earnings. The entities have the option to apply the guidance retrospectively or in the period of adoption. The guidance requires entities to make new disclosures, regardless of whether they elect to reclassify tax effects. The guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption in any period is permitted. The Company expects to adopt the guidance during the first quarter of fiscal year 2020 and is evaluating the effect that ASU 2018-02 will have on its consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), an amendment of the FASB Accounting Standards Codification. In accordance with the provisions of the newly issued guidance, a lessee should recognize at the inception of the arrangement a right-of-use asset and a corresponding lease liability initially measured at the present value of lease payments over the lease term. For finance leases, interest on a lease liability should be recognized separately from the amortization of the right-of-use asset, while for operating leases, total lease costs are recorded on a straight-line basis over the lease term. For leases with a term of twelve months or less, a lessee is permitted to make an accounting policy election by class of underlying assets to forgo a recognition of right-of-use assets and corresponding lease liabilities and record a lease expense on a straight-line basis. Entities should determine at the inception of the arrangement whether a contract represents a lease or contains a lease which is defined as a right to control the use of identified property for a period of time in exchange for consideration. Additionally, entities should separate the lease components from the non-lease components and allocate the contract consideration on a relative standalone price basis in accordance with provisions of ASC Topic 606, Revenue from Contracts with Customers. The guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018 and should be adopted via a modified retrospective approach with certain optional practical expedients that entities may elect to apply. The Company expects to adopt the guidance during the first quarter of fiscal year 2020 and is currently evaluating the impact of this guidance on its financial position and results of operations.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 326), an amendment of the FASB Accounting Standards Codification. The new guidance introduces a new "expected loss" impairment model that applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt securities and other financial assets. Entities are required to estimate expected credit losses over the life of financial assets and record an allowance against the assets' amortized cost basis to present the assets at the amount expected to be collected. Additionally, the guidance amends the impairment model for available for sale debt securities and requires entities to determine whether all or a portion of the unrealized loss on such debt security is a credit loss. The guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. Early adoption of the newly issued guidance is permitted for fiscal years, and interim periods within those years, beginning after December 15, 2018. The standard should be applied as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. The Company expects to adopt the guidance during the first quarter of fiscal year 2021 and is currently evaluating the impact of this guidance on its financial position and results of operations.

In May 2014, the FASB issued new accounting guidance for reporting revenue recognition, ASC 606 Revenue from Contracts with Customer ("ASC 606"). The guidance provides for the recognition of revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. In addition, the guidance requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

The Company will adopt this standard effective October 1, 2018, using the modified retrospective method and will only apply this method to contracts that are not completed as of the effective date and all new contracts initiated on or after the effective date. The modified retrospective method will result in the cumulative effect adjustment being recorded as of the effective date.

The Company has established an implementation team to assist with its assessment of the impact of the new revenue guidance on its operations, consolidated financial statements and related disclosures. The implementation team is also responsible for evaluating and designing the necessary changes to the Company's business processes, policies, systems and controls to support recognition and disclosure under the new guidance. The Company has established a project plan and has completed its initial contract assessments. The results of this assessment have been analyzed to determine the final impact of adoption of the standard on the Company's operations, consolidated financial statements, and related disclosures. Based on the results of the assessment, the Company currently believes potential changes may be driven by the identification of performance obligations, the timing of revenue recognition and the allocation of transaction price to the performance obligations. As part of the procedures completed by the Company, incremental costs to obtain a contract and costs incurred in fulfilling a contract have also been assessed. Based on preliminary results of the assessment, which is still in process, the Company currently believes that the most significant potential changes resulting from the adoption of this standard relate to how the Company accounts for commissions associated with contracts with a term greater than twelve months. Based on the procedures performed to date, the Company expects changes to the consolidated balance sheet related to accounts receivable, contract assets, and contract liabilities, as well as, significant changes to the Company's disclosures, to comply with the new disclosure requirements under ASC 606.

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Other

For further information with regard to the Company’s Significant Accounting Policies, please refer to Note 2 "Summary of Significant Accounting Policies" to the Company’s consolidated financial statements included in the 2017 Annual Report on Form 10 K.

3. Marketable Securities

The Company invests in marketable securities that are classified as available-for-sale and records them at fair value in the Company’s unaudited Consolidated Balance Sheets. Marketable securities reported as current assets represent investments that mature within one year from the balance sheet date. Long-term marketable securities represent investments with maturity dates greater than one year from the balance sheet date. The securities are valued using matrix pricing and benchmarking and classified within Level 2 of the fair value hierarchy because they are not actively traded. Matrix pricing is a mathematical technique used to value securities by relying on the securities’ relationship to other benchmark quoted prices.

Unrealized gains and losses are excluded from earnings and reported as a separate component of accumulated other comprehensive income until the security is sold or matures. Gains or losses realized from sales of marketable securities are computed based on the specific identification method and recognized as a component of "Other expenses, net" in the accompanying unaudited Consolidated Statements of Operations. There were no sales of marketable securities during the three and nine months ended June 30, 2018. During each of the three and nine months ended June 30, 2017, the Company sold marketable securities with a fair value and amortized cost of $3.6 million each and recognized net losses of less than $0.1 million. As a result, during these periods, the Company collected cash proceeds of $3.5 million from the sale of marketable securities and reclassified net unrealized holding losses of less than $0.1 million from accumulated other comprehensive income into "Other expenses, net" in the accompanying unaudited Consolidated Statements of Operations as a result of these transactions.

The following is a summary of the amortized cost and the fair value, including accrued interest receivable and unrealized holding gains (losses) on the short-term and long-term marketable securities as of June 30, 2018 and September 30, 2017 (in thousands):

	Amortized Cost	Gross Unrealized Losses	Gross Unrealized Gains	Fair Value
June 30, 2018 :				
U.S. Treasury securities and obligations of U.S. government agencies	$ 33,547	$ (63)	$ —	$ 33,484
Bank certificates of deposits	5,889	—	1	5,890
Corporate securities	9,298	(18)	—	9,280
Municipal securities	3,216	(17)	—	3,199
Other debt securities	754	—	—	754
	$ 52,704	$ (98)	$ 1	$ 52,607
September 30, 2017 :				
Corporate securities	$ 2,642	$ —	$ —	$ 2,642
Other debt securities	28	—	—	28
	$ 2,670	$ —	$ —	$ 2,670

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The fair values of the marketable securities by contractual maturities at June 30, 2018 are presented below (in thousands):

	Fair Value
Due in one year or less	$ 42,096
Due after one year through five years	7,753
Due after five years through ten years	—
Due after ten years	2,758
Total marketable securities	$ 52,607

Expected maturities could differ from contractual maturities because the security issuers may have the right to prepay obligations without prepayment penalties.

The Company reviews the marketable securities for impairment at each reporting period to determine if any of the securities have experienced an other-than-temporary decline in fair value. The Company considers factors, such as the length of time and extent to which the market value has been less than the cost, the financial condition and near-term prospects of the issuer, the Company's intent to sell, or whether it is more likely than not it will be required to sell the investment before recovery of its amortized cost basis. If the Company believes that an other-than-temporary decline in fair value has occurred, it writes down the investment to its fair value and recognizes the credit loss in earnings and the non-credit loss in accumulated other comprehensive income or loss. As of June 30, 2018, the aggregate fair value of the marketable securities in an unrealized loss position was $42.8 million with a nominal loss, and was primarily comprised of U.S. Treasury securities and obligations of U.S. government agencies, corporate securities, municipal securities and bank certificates of deposits. There were no marketable securities in an unrealized loss position as of September 30, 2017.

Cash equivalents of $50.3 million and less than $0.1 million, respectively, at June 30, 2018 and September 30, 2017 consist of money market funds and are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets. Cash equivalents of $0.5 million and less than $0.1 million, respectively, at June 30, 2018 and September 30, 2017 consist primarily of bank certificates of deposits with original maturities of less than 90 days and are classified within Level 2 of the fair value hierarchy because they are not actively traded.

4. Acquisitions

Acquisitions Completed in Fiscal Year 2018

Acquisition of BioSpeciMan

On April 20, 2018, the Company acquired BioSpeciMan Corporation ("BioSpeciMan"), a Canadian provider of storage services for biological sample materials. BioSpeciMan, founded in 2002, provides temperature controlled biological sample storage services to an attractive mix of pharma, biotech and contract lab customers. This acquisition is expected to expand customer relationships and geographic reach within its growing sample management storage services business in the Brooks Life Sciences segment. The total cash payment made by the Company was $5.2

million, net of cash acquired and subject to working capital adjustments.

The Company allocated the purchase price of $5.2 million based on the fair value of the assets and liabilities acquired as of the acquisition date, which included $0.3 million of accounts receivable, $2.6 million of customer relationships, $2.7 million of goodwill and $0.7 million of assumed liabilities. The Company applied the excess earnings method, a variation of the income approach to determine the fair value of the customer relationship intangible asset. The purchase price allocation was based on a preliminary valuation which is subject to further adjustments within the measurement period when additional information becomes available. The goodwill from this acquisition is reported within the Brooks Life Sciences segment and is not tax deductible.

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At the acquisition date, a cash payment of $0.5 million was held back for potential working capital adjustments and the sellers' satisfaction of general representations and warranties. These holdback payments were ascribed to the purchase price.

The operating results of the acquisition have been reflected in the results of operations for the Brooks Life Sciences segment from the date of the acquisition. The Company did not present a pro forma information summary for its consolidated results of operations for the three and nine months ended June 30, 2018 and 2017 as if the acquisition of BioSpeciMan occurred on October 1, 2016 because such results were immaterial.

During the three months ended June 30, 2018, the Company incurred $0.2 million in transaction costs related to the BioSpeciMan acquisition. The transaction costs were recorded in "Selling, general and administrative" expenses within the accompanying unaudited Consolidated Statements of Operations.

Acquisition of Tec-Sem

On April 6, 2018, the Company acquired approximately 93% of the outstanding capital stock of Tec-Sem Group AG (“Tec-Sem”), a Switzerland-based manufacturer of semiconductor fabrication automation equipment with a focus on reticle management. The total cash payment made by the Company as of June 30, 2018 was $12.8 million, net of cash acquired and subject to working capital adjustments. The Company expects to acquire the remaining 7% noncontrolling interest upon the completion of certain procedural steps. The acquisition of Tec-Sem expands the Company’s contamination control solutions business within the Brooks Semiconductor Solutions Group segment.

The preliminary amounts recorded were as follows (in thousands):

	Fair Value of Assets and Liabilities	
Accounts receivable (approximates contractual value)	$	988
Inventories		4,297
Prepaid expenses and other current assets		4,038
Property, plant and equipment		85
Intangible assets		10,694
Goodwill		7,573
Accounts payable		(1,049)
Accrued liabilities		(6,962)
Deferred tax liabilities		(772)
Accrued pension liability		(3,328)
Noncontrolling interest		(987)
Total purchase price, net of cash acquired	$	14,577

The Company applied variations of the income approach to estimate the fair values of the intangibles assets acquired. The identifiable intangible assets include completed technology (excess earnings method) of $8.4 million with a useful life of 10 years, backlog (excess earnings method) of $1.6 million with a useful life of 1 year, and customer relationships (distributor method) of $0.7 million with a useful life of 9 years. The intangible assets acquired are amortized over the total weighted average period of 8.6 years using methods that approximate the pattern in which the economic benefits are expected to be realized.

Goodwill of $7.6 million largely reflects the potential synergies and expansion of technical capabilities to the Company's existing contamination control solutions business. The goodwill from this acquisition is reported within the Brooks Semiconductor Solutions Group segment and is not tax deductible.

As part of the acquisition, the Company assumed all the assets and liabilities of Tec-Sem’s Swiss defined benefit plan, which covered substantially all its full-time employees. At acquisition date, the plan was fully funded for each employee’s pension contribution plus an expected rate of return equal to the statutory discount rate. Total plan assets were $6.2 million at acquisition date. The Company recorded an additional liability of $3.3 million for the unfunded

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projected benefit obligation related to each plan participant's future services. The total liability for this plan is $9.5 million.

The fair value of the Company's noncontrolling interest in Tec-Sem represents the expected amount to be settled in cash upon acquisition of the remaining 7% interest.

The Company reports the results of operations for Tec-Sem in the Brooks Semiconductor Solutions Group segment starting from the acquisition date. The revenues and net loss from Tec-Sem included in the Company's consolidated results for the three months ended June 30, 2018 were $4.3 million and $1.6 million, respectively. During the three months ended June 30, 2018, the net loss included $0.7 million related to the step-up in value of the acquired inventories and $1.0 million related to amortization expense of acquired intangible assets. During the three months ended June 30, 2018, the Company incurred $0.1 million in transaction costs related to the Tec-Sem acquisition. Net loss attributable to noncontrolling interest for both the three and nine months ended June 30, 2018 was $0.1 million which represents the 7% minority interest in Tec-Sem.

The escrow at closing had a balance of $2.6 million which consisted of $1.8 million related to potential working capital adjustments and the sellers' satisfaction of general representations and warranties. The remaining $0.8 million of the escrow balance is related to a performance obligation that the Company assumed at the acquisition date for the transfer of non-core wafer stocker technology to an unrelated third party. Upon successful delivery of such technology, the Company expects to collect a portion of the $0.8 million which will represent reimbursement of costs incurred to complete development.

The Company did not present a pro forma information summary for its consolidated results of operations for the three and nine months ended June 30, 2018 and 2017 as if the acquisition of Tec-Sem occurred on October 1, 2016 because such results were immaterial.

Acquisition of 4titude Limited

On October 5, 2017, the Company acquired all the outstanding capital stock of 4titude Limited ("4titude"), a U.K.-based manufacturer of scientific consumables for biological sample materials used in a variety of genomic and DNA analytical applications. The acquisition of 4titude will expand the Company's existing offerings of consumables and instruments within the Brooks Life Sciences segment. The aggregate purchase price of $65.1 million, net of cash acquired, consisted primarily of a cash payment of $64.8 million subject to working capital adjustments and the assumption of the seller's liabilities of $0.4 million.

The Company used a market participant approach to record the assets acquired and liabilities assumed in the 4titude acquisition as follows (in thousands):

	Fair Value of Assets and Liabilities
Accounts receivable (approximates contractual value)	$ 1,581
Inventories	2,667
Prepaid expenses and other current assets	140
Property, plant and equipment	1,555
Intangible assets	27,212
Goodwill	38,185
Accounts payable	(286)

Accrued liabilities		(845)
Deferred tax liabilities		(5,090)
Total purchase price, net of cash acquired	$	65,119

The Company applied variations of the income approach to estimate the fair values of the intangibles assets acquired. The identified intangible assets include customer relationships (excess earnings method) of $21.4 million with a useful life of 10 years, completed technology (relief from royalty method) of $5.2 million with a useful life of 13 years,

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backlog (excess earnings method) of $0.4 million with a useful life of 1 year and trademarks (excess earnings method) of $0.2 million with a useful life of 1 year. The intangible assets acquired are amortized over the total weighted average period of 10.4 years using methods that approximate the pattern in which the economic benefits are expected to be realized.

At the closing of the acquisition of 4titude, a cash payment of $0.4 million was placed into escrow which was ascribed to the purchase price. The escrow was related to potential working capital adjustments and the sellers' satisfaction of general representations and warranties. The escrow balance was $0.2 million as of June 30, 2018.

Goodwill represents the excess of the consideration paid over the fair value of the net assets acquired and has been assigned to the Brooks Life Sciences segment. Goodwill is primarily the result of expected synergies from combining the operations of 4titude with the Company's operations and is not deductible for tax purposes.

The operating results of 4titude have been reflected in the results of operations for the Brooks Life Sciences segment from the date of the acquisition, which included approximately nine months of activity during the first three quarters of fiscal year 2018. During the three months ended June 30, 2018, revenue and net income from 4titude recognized in the Company's results of operations were $3.9 million and less than $0.1 million, respectively. During the nine months ended June 30, 2018, revenue and net loss from 4titude recognized in the Company's results of operations were $11.6 million and $1.2 million, respectively. During the three and nine months ended June 30, 2018, the net income or loss included recurring charges of $1.0 million and $3.1 million, respectively, related to amortization expense of acquired intangible assets. During the nine months ended June 30, 2018, the net loss also included non-recurring charges of $1.2 million related to the step-up in value of the acquired inventories. There was no such charge during the three months ended June 30, 2018.

During the nine months ended June 30, 2018, the Company incurred $1.0 million in non-recurring transaction costs with respect to the 4titude acquisition, which were recorded in "Selling, general and administrative" expenses within the accompanying unaudited Consolidated Statements of Operations. There were no transaction costs related to the 4titude acquisition during the three months ended June 30, 2018.

The Company did not present a pro forma information summary for its consolidated results of operations for the three and nine months ended June 30, 2018 and 2017 as if the acquisition of 4titude occurred on October 1, 2016 because such results were immaterial.

Acquisitions Completed in Fiscal Year 2017

Acquisition of Pacific Bio-Material Management, Inc. and Novare, LLC

On July 5, 2017, the Company entered into an asset purchase agreement with Pacific Bio-Material Management, Inc. ("PBMMI") and Novare, LLC, a wholly owned subsidiary of PBMMI (collectively, the "sellers"), pursuant to which the Company acquired substantially all of the assets and liabilities of the sellers' business related to providing storage, transportation, management, and cold chain logistics of biological materials. The Company paid to the sellers cash consideration of $34.3 million, net of cash acquired and subject to working capital adjustments.

At the closing of the acquisition of PBMMI, a cash payment of $3.3 million was placed into escrow which was ascribed to the purchase price. The escrow balance of $3.3 million included $2.9 million related to satisfaction of the sellers' indemnification obligations with respect to their representations and warranties and other indemnities, as well as $0.4 million payable to the former owner of Novare as a compensation for a sale of his ownership interest. This escrow arrangement is administered by the Company on behalf of the sellers. As of June 30, 2018, the escrow balance related to satisfaction of the sellers' indemnification obligations was $2.7 million, and the $0.4 million Novare escrow balance had been released.

The operating results of PBMMI have been reflected in the results of operations for the Brooks Life Sciences segment from the date of the acquisition. During the three months ended June 30, 2018, revenue and net income from PBMMI recognized in the Company's results of operations were $3.2 million and $0.4 million, respectively. During the

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nine months ended June 30, 2018, revenue and net income from PBMMI recognized in the Company’s results of operations were $8.0 million and $0.3 million, respectively. During the three and nine months ended June 30, 2018, the net income included recurring charges of $0.4 million and $1.2 million, respectively, related to amortization expense of acquired intangible assets. Please refer to Note 3, "Acquisitions" to the Company's consolidated financial statements included in the 2017 Annual Report on Form 10-K for further information on PBMMI acquisition.

Acquisition of Cool Lab, LLC

On November 28, 2016, the Company acquired 100% of the equity of Cool Lab, LLC ("Cool Lab") from BioCision, LLC ("BioCision"). The Company held a 20% equity ownership interest in BioCision prior to the acquisition. The Company used a market participant approach to record the assets acquired and liabilities assumed in the Cool Lab acquisition. The purchase price allocation had been finalized as of June 30, 2018. Please refer to Note 3, “Acquisitions” to the Company’s consolidated financial statements included in the 2017 Annual Report on Form 10-K for further information on this transaction.

The Company recorded a liability of $0.7 million in the purchase price allocation that represented a pre-acquisition contingency incurred on the acquisition date. The obligation is related to a rebate that is due to a particular customer if the annual product sales volume metrics exceed threshold amounts under the provisions of the contract assumed by the Company. Fair value of such liability was determined based on a probability-weighted discounted cash flow model. The carrying amount of the liability was $0.8 million and $0.7 million, respectively, at June 30, 2018 and September 30, 2017.

The operating results of Cool Lab have been reflected in the results of operations for the Brooks Life Sciences segment from the date of the acquisition, which included approximately one month of activity during the first quarter of fiscal year 2017. During the three months ended June 30, 2018, revenue and net income from Cool Lab recognized in the Company’s results of operations were $0.9 million and $0.1 million, respectively. During the nine months ended June 30, 2018, revenue and net loss from Cool Lab recognized in the Company’s results of operations were $2.6 million and $0.1 million, respectively. During the three and nine months ended June 30, 2018, the net income or loss included recurring charges of $0.3 million and $1.1 million, respectively, related to amortization expense of acquired intangible assets.

5. Goodwill and Intangible Assets

Goodwill represents the excess of net book value over the estimated fair value of net tangible and identifiable intangible assets of a reporting unit. Goodwill is tested for impairment annually or more often if impairment indicators are present at the reporting unit level. If events occur or circumstances change that would more likely than not reduce fair values of the reporting units below their carrying values, goodwill will be evaluated for impairment between annual tests. No triggering events indicating goodwill impairment occurred during the nine months ended June 30, 2018.

The Company performs its annual goodwill impairment assessment on April 1st of each fiscal year. In accordance with ASC 350, Intangibles-Goodwill and Other, the Company initially assesses qualitative factors to determine whether the existence of events or circumstances indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying value. If the Company determines, based on this assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying value, it performs a quantitative goodwill impairment test by comparing the reporting unit’s fair value with its carrying value. An impairment loss is recognized for the amount by which the reporting unit’s carrying value exceeds its fair value, up to the total amount of goodwill allocated to the reporting unit. No impairment loss is recognized if the fair value of the reporting exceeds its carrying value.

As of June 30, 2018, the Company completed the annual goodwill impairment test for its five reporting units and determined that no adjustment to goodwill was necessary. The Company conducted a qualitative assessment for three reporting units within the Brooks Semiconductor Solutions Group segment and determined that it was more likely than not that their fair values were more than their carrying values. As a result of the analysis, the Company did not perform the quantitative assessment for these reporting units, and did not perform a quantitative analysis and, therefore, did not recognize any impairment losses. The Company performed the quantitative goodwill impairment test for the fourth

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reporting unit within the Brooks Semiconductor Solutions Group segment and for the Brooks Life Science Systems reporting unit. The Company determined that no adjustment to goodwill was necessary for these two reporting units since their fair values significantly exceeded their respective carrying values. If events occur or circumstances change that would more likely than not reduce the fair value of any reporting unit below its carrying value, the Company will evaluate such reporting unit's goodwill for impairment between annual tests.

The components of the Company's goodwill by operating segment at June 30, 2018 and September 30, 2017 are as follows (in thousands):

	Brooks Semiconductor Solutions Group	Brooks Life Sciences	Other	Total
Gross goodwill, at September 30, 2017	$ 655,762	$ 166,820	$ 26,014	$ 848,596
Accumulated goodwill impairments	(588,944)	—	(26,014)	(614,958)
Goodwill, net of accumulated impairments, at September 30, 2017	66,818	166,820	—	233,638
Acquisitions and adjustments	7,395	41,172	—	48,567
Gross goodwill, at June 30, 2018	663,157	207,992	26,014	897,163
Accumulated goodwill impairments	(588,944)	—	(26,014)	(614,958)
Goodwill, net of accumulated impairments, at June 30, 2018	$ 74,213	$ 207,992	$ —	$ 282,205

During the nine months ended June 30, 2018, the Company recorded a goodwill increase of $48.6 million primarily related to the acquisitions of 4titude, Tec-Sem and BioSpeciMan which represented the excess of the consideration transferred over the fair value of the net assets acquired. Please refer to the Note 4 "Acquisitions" for further information on this transaction.

The components of the Company's identifiable intangible assets as of June 30, 2018 and September 30, 2017 are as follows (in thousands):

	June 30, 2018			September 30, 2017		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Patents	$ 9,028	$ 7,960	$ 1,068	$ 9,028	$ 7,729	$ 1,299
Completed technology	74,747	57,734	17,013	61,662	54,777	6,885
Trademarks and trade names	9,404	5,785	3,619	9,244	4,969	4,275
Customer relationships	157,211	72,716	84,495	130,655	59,594	71,061
	$ 250,390	$ 144,195	$ 106,195	$ 210,589	$ 127,069	$ 83,520

Amortization expense for intangible assets was $17.7 million and $12.7 million, respectively, during the nine months ended June 30, 2018 and 2017.

Estimated future amortization expense for the intangible assets for the remainder of fiscal year 2018, the subsequent four fiscal years and thereafter is as follows (in thousands):

Fiscal year ended September 30,	
2018	$ 6,141
2019	23,373
2020	20,849
2021	14,745
2022	11,842
Thereafter	29,245
	$ 106,195

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6. Equity Method Investments

The Company accounts for certain of its investments using the equity method of accounting and records its proportionate share of the investee's earnings in its results of operations with a corresponding increase in the carrying value of the investment.

ULVAC Cryogenics, Inc.

The Company and ULVAC Corporation of Chigasaki, Japan each own a 50% stake in the joint venture, ULVAC Cryogenics, Inc ("UCI"). UCI manufactures and sells cryogenic vacuum pumps, principally to ULVAC Corporation.

The carrying value of the investment in UCI was $37.1 million and $28.6 million, respectively, at June 30, 2018 and September 30, 2017. During the three months ended June 30, 2018 and 2017, the Company recorded income of $1.3 million and $2.5 million, respectively, representing its proportionate share of UCI's earnings. During the nine months ended June 30, 2018 and 2017, the Company recorded income of $4.9 million and $7.7 million, respectively, representing its proportionate share of UCI's earnings. Management fee payments received by the Company from UCI were $0.3 million during each of the three months ended June 30, 2018 and 2017. Management fee payments received by the Company from UCI were $0.8 million during each of the nine months ended June 30, 2018 and 2017.

7. Line of Credit

The Company maintains a revolving line of credit with Wells Fargo Bank, N.A. and JPMorgan Chase Bank, N.A that provides for revolving credit financing of up to $75.0 million, subject to borrowing base availability, as defined in the credit agreement. The line of credit matures on October 4, 2022 and expires no less than 90 days prior to the term loan expiration. The proceeds from the line of credit are available for permitted acquisitions and general corporate purposes.

On October 4, 2017, the Company entered into a $200.0 million Senior Secured Term Loan Facility (the "term loan") with Morgan Stanley Senior Funding, Inc., JPMorgan Chase Bank, N.A. and Wells Fargo Securities, LLC (collectively, the "lenders"). Coincident with the entry into the term loan agreement, the Company amended certain terms and conditions of the credit agreement and entered into an arrangement with Wells Fargo Bank, N.A. and JPMorgan Chase Bank, N.A. Based on the amended terms of the credit agreement, the line of credit continues to provide for revolving credit financing of up to $75.0 million, subject to borrowing base availability. Borrowing base availability under the amended line of credit excludes collateral related to fixed assets and is redetermined periodically based on certain percentage of certain eligible U.S. assets, including accounts receivable and inventory. The sub-limits for letters of credit were reduced to $7.5 million under the amended terms of the credit agreement. All outstanding borrowings under the credit agreement are guaranteed by the Company and BioStorage Technologies, Inc., its wholly-owned subsidiary, and subordinated to the obligations under the term loan which are secured by a first priority lien on substantially all of the assets of the Company and the guarantor, other than accounts receivable and inventory. Please refer to Note 8, "Debt", for further information on the term loan transaction.

There were no amounts outstanding under the line of credit as of June 30, 2018 and September 30, 2017. The Company records commitment fees and other costs directly associated with obtaining line of credit financing as deferred financing costs which are presented within "Other assets" in the accompanying unaudited Consolidated Balance Sheets. Deferred financing costs were $0.5 million at both June 30, 2018 and September 30, 2017. Such costs are amortized over the term of the related financing arrangement and are included in “Interest expense” in the accompanying unaudited Consolidated Statements of Operations. The line of credit contains certain customary representations and warranties, a financial covenant and affirmative and negative covenants as well as events of default. The Company was in compliance with the line of credit covenants as of June 30, 2018 and September 30, 2017.

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8. Debt

On October 4, 2017, the Company entered into a $200.0 million term loan with the lenders. The term loan was issued at $197.6 million, or 98.8% of its par value, resulting in a discount of $2.4 million, or 1.2%, which represented loan origination fees paid at the closing. The Company incurred additional deferred financing costs of $0.4 million during the nine months ended June 30, 2018. The loan proceeds are to be used for general corporate purposes, including acquisitions. The loan principal amount may be increased by an aggregate amount equal to $75.0 million plus any voluntary repayments of the term loans plus any additional amount such that the secured leverage ratio of the Company is less than 3.00 to 1.00.

Under the terms of the term loan agreement, the Company may elect for the loan to bear an interest rate as Eurodollar Borrowings or as Alternate Base Rate Borrowings. Interest applicable to Eurodollar Borrowings is based on the Adjusted LIBO Rate plus applicable margin of 2.50%. The Adjusted LIBO Rate is the rate appearing on Bloomberg screen LIBOR01 which gets reset at the beginning of each selected interest period based on the LIBOR rate then in effect. Interest applicable to ABR Borrowings is based on the Alternate Base Rate plus applicable margin of 1.50%. Alternate Base Rate is determined based on the highest of: (a) the federal funds effective rate plus 0.50%, (b) prime rate plus 1.00%, or (c) one-month LIBOR rate plus 1.00%.

The Company’s obligations under the term loan are also guaranteed by BioStorage Technologies, Inc. as the guarantor, subject to the terms and conditions of the term loan agreement. The Company and the guarantor granted the lenders a perfected first priority security interest in substantially all of the assets of the Company and the guarantor to secure the repayment of the term loan.

The term loan matures and becomes fully payable on October 4, 2024. The principal is payable in installments equal to 0.25% of the initial principal amount of the term loans on March 31st, June 30th, September 30th and December 31st of each year, commencing on March 31, 2018, with any remaining amount of principal becoming due and payable on the maturity date. All accrued and unpaid interest on Borrowings shall be due on the last day of each interest period elected by the Company for such Borrowings, except for interest periods of more than three months in which case all accrued and unpaid interest shall be due and payable every three months.

Subject to certain conditions stated in the term loan agreement, the Company may redeem the term loan at any time at its option without a significant premium or penalty, except for a repricing transaction, as defined in the term loan agreement. The Company would be required to redeem the term loan at the principal amount then outstanding upon occurrence of certain events, including (i) net proceeds received from the sale or other disposition of the Company’s or guarantor’ assets, subject to certain limitations, (ii) casualty and condemnation proceeds received by the Company or the guarantor, subject to certain exceptions, (iii) net proceeds received by the Company or the guarantor from the issuance of debt or disqualified capital stock after October 4, 2017. Commencing on December 31, 2018, the Company will be required to make principal payments equal to the excess cash flow amount, as defined in the term loan agreement. Such prepayments are equal to 50% of the preceding year excess cash flow amount reduced by voluntary prepayments of the term loan, subject to certain limitations.

The Company records commitment fees and other costs directly associated with obtaining term loan financing as deferred financing costs which are presented as a reduction of the term loan principal balance in the accompanying unaudited Consolidated Balance Sheets. Such costs are accreted over the term of the loan using the effective interest rate method and are included in “Interest expense” in the accompanying unaudited Consolidated Statements of Operations. At June 30, 2018, deferred financing costs were $2.5 million.

During the three months ended June 30, 2018, the weighted average stated interest rate paid on the term loan was 4.5%. During the nine months ended June 30, 2018, the Company incurred aggregate interest expense of $6.6 million in connection with the term loan borrowings, including $0.3 million of deferred financing costs amortization.

The term loan agreement contains certain customary representations and warranties, covenants and events of default. If any of the events of default occur and are not waived or cured within applicable grace periods, any unpaid amounts under the term loan agreement will bear an annual interest rate at 2.00% above the rate otherwise applicable under the terms and conditions of such agreement. The term loan agreement does not contain financial maintenance

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covenants. As of June 30, 2018, the Company was in compliance with all covenants and conditions under the term loan agreement.

The following are the future minimum principal payment obligations under the term loan as of June 30, 2018:

	Amount
Fiscal year ended September 30,	
2018	$ 500
2019	2,000
2020	2,000
2021	2,000
2022	2,000
Thereafter	190,500
Total outstanding principal balance	199,000
Unamortized deferred financing costs	(2,530)
	196,470
Term loan, current portion	2,000
Term loan, long-term portion	$ 194,470

As of June 30, 2018, estimated fair value of the term loan outstanding principal balance approximates its carrying value. The fair value was determined based on observable market inputs and classified within Level 2 of the fair value hierarchy due to a lack of an active market for this term loan or a similar loan instrument.

9. Income Taxes

The Company recorded an income tax provision of $3.3 million for the three months ended June 30, 2018 and an income tax benefit of $37.7 million for the nine months ended June 30, 2018. The tax provision for the three months ended June 30, 2018 was primarily driven by the income generated during the quarter. The income tax benefit for the nine months ended June 30, 2018 was primarily driven by a discrete benefit of $45.6 million due to the reversal of a valuation allowance against U.S. net deferred tax assets. The tax benefit for the nine months ended June 30, 2018 also included $0.7 million of tax benefits related to the re-measurement of net U.S. deferred tax liabilities to account for the reduced 21% statutory federal income tax rate. The benefit for the nine months ended June 30, 2018 was partially offset by the tax provisions related to foreign income.

The Company recorded an income tax provision of $3.7 million and $9.9 million, respectively, for the three and nine months ended June 30, 2017. The provision recorded during each period was primarily driven by foreign income. Tax provision during the nine months ended June 30, 2017 was partially offset by $0.9 million of tax benefits related to the reduction of reserves for unrecognized tax benefits resulting from the expiration of statutes of limitations.

The Company evaluates the realizability of its deferred tax assets by tax-paying component and assesses the need for a valuation allowance on a quarterly basis, considering the weight of both positive and negative evidence in making the assessment. The Company evaluates the profitability of each tax-paying component on a historic cumulative basis and forward looking basis, considering tax-planning strategies and the length of credit and loss carryforward and carryback periods, among other factors, in the course of performing this analysis. As of June 30, 2018, the Company maintained its assertion that it is more likely than not that a substantial portion of U.S. deferred tax assets will be realized, with the exception of certain state tax carryforwards.

During the first quarter of fiscal year 2018, the Company adopted ASU 2016-09, Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting (“ASU 2016-09). Upon adoption of ASU 2016-09, the Company amended the accounting for employee share-based payment transactions to recognize tax effects resulting from the settlement of stock-based awards as income tax expense or benefit in the income statement in the reporting period in which they occur. Adoption of this ASU required recognition of a cumulative effect adjustment to retained earnings in connection with the establishment of a deferred tax asset for any prior year net excess tax benefits or tax deficiencies not previously recorded. This adjustment resulted in a $4.0 million increase to retained earnings and deferred tax asset for net prior year excess tax benefits, with a corresponding decrease to retained earnings for the establishment of valuation allowance against the deferred tax asset. This increase to the valuation allowance was subsequently part of the valuation allowance reversal during the second quarter of fiscal year 2018.

During the first quarter of fiscal year 2018, the Tax Cuts and Jobs Act ("Tax Reform") was enacted in the U.S., making significant tax law changes affecting the Company. The SEC issued Staff Accounting Bulletin 118 ("SAB 118"), which provided guidance for companies that had not completed the accounting for the income tax effects of Tax Reform. Under SAB 118, a company may report provisional amounts based on reasonable estimates where the accounting is incomplete. These amounts are subject to adjustments during a measurement period of up to one year beginning in the reporting period of the enactment date.

Upon the enactment of Tax Reform, the Company was subject to a toll charge in the U.S. on its previously untaxed accumulated foreign earnings. The toll charge was treated as an inclusion of the Company's accumulated foreign earnings in U.S. taxable income during the tax year ended September 30, 2018. Any taxes due associated with the toll charge will be payable over an eight year period. The Company has estimated that its accumulated foreign earnings are $120.0 million which is a provisional amount subject to the measurement period described in Staff Accounting Bulletin 118. There are still incomplete components related to the accumulated foreign earnings calculations for older tax years that require additional time to complete the calculations. The Company also has a history of foreign mergers and acquisitions and proper determination of the impact on the accumulated earnings is complex. The Company has estimated a $5.2 million toll charge associated with the taxable foreign earnings, net of foreign tax credits associated with the earnings subject to the toll tax. The Company did not record any provision for currently estimated tax associated with the toll charge as sufficient previously un-benefited tax attributes with valuation allowances existed to offset the resulting tax during the quarter of enactment of the tax law, however, the toll charge reduced the impact of the valuation allowance reversal.

As a result of Tax Reform, the Company calculated its U.S. tax provision for the three and nine months ended June 30, 2018 using a blended U.S. statutory tax rate of 24.5% which is a prorated allocation of the 35% rate in effect prior to Tax Reform through December 31, 2017 and the 21% rate in effect for the remainder of the fiscal year. The Company recorded a discrete benefit of $0.7 million in the nine months ended June 30, 2018 due to the impact of the U.S. rate change on its net U.S. deferred tax liabilities.

As of June 30, 2018, the Company maintains its indefinite reinvestment assertion on foreign earnings. The Company is continuing to evaluate the impact of Tax Reform on its reinvestment plans, as the accounting for Tax Reform is completed during the measurement period described in SAB 118. While the toll charge is a forced deemed repatriation of foreign earnings and an inclusion in U.S. federal taxable income, there are still additional costs of repatriating the foreign earnings such as foreign withholding taxes and state taxes.

The Company is subject to U.S. federal income tax and various state, local and international income taxes in various jurisdictions. The amount of income taxes paid is subject to the Company's interpretation of applicable tax laws in the jurisdictions in which it files tax returns. In the normal course of business, the Company is subject to income tax audits in various global jurisdictions in which it operates. The years subject to examination vary for the U.S. and international jurisdictions, with the earliest tax year being 2011. Based on the outcome of these examinations or the expiration of statutes of limitations for specific jurisdictions, it is reasonably possible that the related unrecognized tax benefits could change from those recorded in the Company's unaudited Consolidated Balance Sheets. The Company currently anticipates that it is reasonably possible that the unrecognized tax benefits will be reduced by approximately $0.2 million within the next twelve months.

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10. Other Balance Sheet Information

The following is a summary of accounts receivable at June 30, 2018 and September 30, 2017 (in thousands):

	June 30, 2018	September 30, 2017
Accounts receivable	$ 157,872	$ 122,868
Less allowance for doubtful accounts	(1,142)	(1,959)
Less allowance for sales returns	(52)	(81)
Accounts receivable, net	$ 156,678	$ 120,828

The following is a summary of inventories at June 30, 2018 and September 30, 2017 (in thousands):

	June 30, 2018	September 30, 2017
Inventories		
Raw materials and purchased parts	$ 83,603	$ 73,819
Work-in-process	21,699	10,548
Finished goods	26,996	22,028
Total inventories	$ 132,298	$ 106,395

Reserves for excess and obsolete inventory were $21.0 million and $23.5 million, respectively, at June 30, 2018 and September 30, 2017.

At June 30, 2018 and September 30, 2017, the Company had cumulative capitalized direct costs of $5.5 million and $4.7 million, respectively, associated with the development of software for its internal use which are included within "Property, plant and equipment, net" in the accompanying unaudited Consolidated Balance Sheets. During the nine months ended June 30, 2018, the Company capitalized direct costs of $0.8 million associated with the development of software for its internal use.

The Company establishes reserves for estimated costs of product warranties based on historical information. Product warranty reserves are recorded at the time product revenue is recognized, and retrofit accruals are recorded at the time retrofit programs are established. The Company’s warranty obligation is affected by product failure rates, utilization levels, material usage, service delivery costs incurred in correcting a product failure and supplier warranties on parts delivered to the Company.

The following is a summary of product warranty and retrofit activity on a gross basis for the three and nine months ended June 30, 2018 and 2017 (in thousands):

Activity -Three Months Ended June 30, 2018			
Balance March 31, 2018	Accruals	Costs Incurred	Balance June 30, 2018

$ 8,289	$ 1,895	$ (1,425)	$ 8,759

Activity -Three Months Ended June 30, 2017

Balance March 31, 2017	Accruals	Costs Incurred	Balance June 30, 2017
$ 7,073	$ 2,440	$ (1,867)	$ 7,646

Activity -Nine Months Ended June 30, 2018

Balance September 30, 2017	Accruals	Costs Incurred	Balance June 30, 2018
$ 8,054	$ 6,304	$ (5,599)	$ 8,759

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Activity -Nine Months Ended June 30, 2017			
Balance September 30, 2016	Accruals	Costs Incurred	Balance June 30, 2017
$ 6,324	$ 7,656	$ (6,334)	$ 7,646

11. Stock-Based Compensation

The Company may issue to eligible employees restricted stock units and restricted stock awards (collectively "restricted stock units") and stock options which vest upon the satisfaction of a performance condition and/or a service condition. In addition, the Company issues shares to participating employees pursuant to an employee stock purchase plan and restricted stock units subject to one-year cliff vesting to its directors in accordance with its director compensation program.

The following table reflects stock-based compensation expense recorded during the three and nine months ended June 30, 2018 and 2017 (in thousands):

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2018	2017	2018	2017
Restricted stock	$ 4,636	$ 4,044	$ 14,335	$ 10,634
Employee stock purchase plan	234	153	664	447
Total stock-based compensation expense	$ 4,870	$ 4,197	$ 14,999	$ 11,081

The fair value of restricted stock units is determined based on the number of shares granted and the closing price of the Company's common stock quoted on the Nasdaq Stock Market on the date of grant. The Company recognizes stock-based compensation expense on a straight-line basis, net of estimated forfeitures, over the requisite service period. Additionally, the Company assesses the likelihood of achieving the performance goals against previously established performance targets in accordance with the Company's long-term equity incentive plan for stock-based awards that vest upon or after the satisfaction of these goals.

During the first quarter of fiscal year 2018, the Company adopted ASU 2016-09. Upon adoption of ASU 2016-09, the Company made an accounting policy election to continue accounting for forfeitures by applying an estimated forfeiture rate. The adoption of ASU 2016-09 did not have an impact on the stock compensation expense amount recognized during the three and nine months ended June 30, 2018 and accumulated deficit at June 30, 2018.

The Company grants restricted stock units that vest over a required service period and/or achievement of certain operating performance goals. Restricted stock units granted with performance goals may also have a required service period following the achievement of all or a portion of the performance goals. The following table reflects restricted stock units granted during the nine months ended June 30, 2018 and 2017:

	Total Units	Time-Based Units	Stock Grants	Performance-Based Units
Nine months ended June 30, 2018	528,075	208,097	35,356	284,622
Nine months ended June 30, 2017	1,008,570	377,213	43,019	588,338

Time-Based Grants

Restricted stock units granted with a required service period typically have three-year vesting schedules in which one-third of awards vest at the first anniversary of the grant date, one-third vest at the second anniversary of the grant date and one-third vest at the third anniversary of the grant date, subject to the award holders meeting service requirements.

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Stock Grants

During the nine months ended June 30, 2018 and 2017, the Company granted 35,356 and 43,019 units, respectively, to the members of the Company's Board of Directors, including 26,539 and 28,065 units, respectively, that were compensation-related. Compensation-related units granted during the nine months ended June 30, 2018 and 2017 are subject to a one-year vesting period starting from the grant date. The units granted during the nine months ended June 30, 2018 will vest on the date which is one day before the Company's 2019 Annual Meeting of Stockholders. The units granted during the nine months ended June 30, 2017 vested on January 30, 2018, which was one day before the Company's 2018 Annual Meeting of Stockholders. Certain members of the Board of Directors previously elected to defer receiving their annual awards of restricted shares of the Company stock and quarterly dividends until a future date. During the nine months ended June 30, 2018 and 2017, the Company granted 7,130 and 13,065 units, respectively, related to such deferred annual restricted share awards as well as 1,687 and 1,889 units, respectively, related to deferred quarterly dividends. Annual restricted share awards granted during the nine months ended June 30, 2018 and 2017 are subject to a one-year vesting period starting from the grant date. The units will vest on the date which is one day before the Company's Annual Meeting of Stockholders, but certain holders have elected to defer the receipt of the Company shares until they attain a certain age or cease to provide services to the Company in their capacity as Board members. The amount of units granted during the nine months ended June 30, 2018 and 2017 related to deferred quarterly dividends was equal to the value of cash dividends that would be paid on the number of total deferred shares based on the closing price of the Company’s stock on the dividend record date. Such units vested upon their issuance, but the settlement was deferred by certain holders for the same conditions, as described above.

Performance-Based Grants

Performance-based restricted stock units are earned based on the achievement of performance criteria established by the Human Resources and Compensation Committee of the Board of Directors. The criteria for performance-based awards are weighted and have threshold, target and maximum performance goals.

Performance-based awards granted in fiscal year 2017 allow participants to earn 100% of a targeted number of restricted stock units if the Company’s performance meets its target for each applicable financial metric, and up to a maximum of 200% of the restricted stock units target if the Company’s performance for such metrics meets the maximum threshold. Performance below the minimum threshold for each financial metric results in award forfeitures. Performance goals will be measured over a three year period at the end of fiscal year 2020 to determine the number of units earned by recipients who continue to meet a service requirement. Units held by recipients who fail to meet the continued service requirement are forfeited. Earned units for recipients who continue to meet the service requirements vest on the date the Company’s Board of Directors determines the number of units earned, which will be approximately the third anniversary of the grant date.

Performance-based awards granted in fiscal year 2016 also include provisions that allow participants to earn threshold, target and maximum awards ranging from 0% of the award for performance below the minimum threshold, 100% of the award for performance at target, and up to a maximum of 200% of the award if the Company achieves the maximum performance goals.

Restricted Stock Unit Activity

The following table summarizes restricted stock unit activity for the nine months ended June 30, 2018:

		Weighted Average

	Shares	Grant-Date Fair Value
Outstanding at September 30, 2017	2,474,011	$ 12.34
Granted	528,075	33.31
Vested	(724,339)	12.76
Forfeited	(66,128)	16.77
Outstanding at June 30, 2018	2,211,619	17.13

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The weighted average grant date fair value of restricted stock units granted during the three months ended June 30, 2018 and 2017 was $25.71 and $25.21, respectively. The weighted average grant date fair value of restricted stock units granted during the nine months ended June 30, 2018 and 2017 was $33.31 and $14.32, respectively. The fair value of restricted stock units vested during the three months ended June 30, 2018 and 2017 was $2.7 million and $2.9 million, respectively. The fair value of restricted stock units vested during the nine months ended June 30, 2018 and 2017 was $21.8 million and $14.8 million, respectively. During the nine months ended June 30, 2018 and 2017, the Company remitted $7.2 million and $4.6 million, respectively, for withholding taxes on vested restricted stock units, of which $0.1 million was paid by the Company during the nine months ended June 30, 2017. There were no taxes on vested restricted stock units paid by the Company during the nine months ended June 30, 2018. During the nine months ended June 30, 2018 and 2017, the Company received $7.2 million and $4.6 million, respectively, in cash proceeds from employees to satisfy their tax obligations as a result of share issuances.

As of June 30, 2018, the unrecognized compensation cost related to restricted stock units that are expected to vest is $25.5 million and will be recognized over an estimated weighted average service period of approximately 1.6 years.

Employee Stock Purchase Plan

The Company maintains an employee stock purchase plan that allows its employees to purchase shares of common stock at a price equal to 85% of the fair market value of the Company's stock at the beginning or the end of the semi-annual period, whichever is lower. There were 66,785 and 90,681 shares, respectively, purchased by employees under the employee stock purchase plan during the nine months ended June 30, 2018 and 2017.

12. Earnings per Share

The calculations of basic and diluted net income per share and basic and diluted weighted average shares outstanding are as follows for the three and nine months ended June 30, 2018 and 2017 (in thousands, except per share data):

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2018	2017	2018	2017
Net income	$ 22,606	$ 17,350	$ 106,112	$ 45,226
Net loss attributable to noncontrolling interest	111	—	111	—
Net income attributable to Brooks Automation, Inc.	$ 22,717	$ 17,350	$ 106,223	$ 45,226
Weighted average common shares outstanding used in computing basic earnings per share	70,596	69,711	70,425	69,496
Dilutive restricted stock units	382	694	508	702
Weighted average common shares outstanding used in computing diluted earnings per share	70,978	70,405	70,933	70,198
Basic net income per share	$ 0.32	$ 0.25	$ 1.51	$ 0.65
Diluted net income per share	$ 0.32	$ 0.25	$ 1.50	$ 0.64

During the nine months ended June 30, 2018, antidilutive restricted stock units of 190,266 were excluded from the computation of diluted earnings per share based on the treasury stock method. There were no antidilutive restricted stock units excluded from the computation of diluted earnings per share, during the three and nine months ended June 30, 2017 and three months ended June 30, 2018.

13. Restructuring Charges

The restructuring charges recorded by the Company during the three and nine months ended June 30, 2018 were nominal. During the three and nine months ended June 30, 2017, the Company recorded restructuring charges of $0.8 million and $2.7 million, respectively. The charges during the three months ended June 30, 2017 was primarily related to

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severance in the Brooks Semiconductor Solutions Group segment. The charges during the nine months ended June 30, 2017 included $2.2 million in the Brooks Semiconductor Solutions Group segment, $0.2 million in the Brooks Life Sciences segment and $0.3 million related to a company-wide restructuring action.

The following is a summary of activity related to the Company's restructuring charges for the three and nine months ended June 30, 2018 and 2017 (in thousands):

	Activity -Three Months Ended June 30, 2018			
	Balance March 31, 2018	Expenses	Payments	Balance June 30, 2018
Total restructuring liabilities related to workforce termination benefits	$ 416	$ 82	$ (284)	$ 214

	Activity -Three Months Ended June 30, 2017			
	Balance March 31, 2017	Expenses	Payments	Balance June 30, 2017
Total restructuring liabilities related to workforce termination benefits	$ 2,044	$ 828	$ (1,182)	$ 1,690

	Activity -Nine Months Ended June 30, 2018			
	Balance September 30, 2017	Expenses	Payments	Balance June 30, 2018
Total restructuring liabilities related to workforce termination benefits	$ 1,708	$ 131	$ (1,625)	$ 214

Activity -Nine Months Ended June 30, 2017	
Balance September 30,	Balance