HAEMONETICS CORP
Form 10-Q
November 03, 2011

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-Q

Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the quarter ended: October 1, 2011
Commission File Number: 1-14041
HAEMONETICS CORPORATION
(Exact name of registrant as specified in its charter)

Massachusetts	**04-2882273**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

400 Wood Road, Braintree, MA 02184
(Address of principal executive offices)

Registrant s telephone number, including area code: **(781) 848-7100**

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) (2.) has been subject to the filing requirements for at least the past 90 days.

Yes þ No o

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 þ No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of large accelerated filer , accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.)

Yes o No þ

The number of shares of $.01 par value common stock outstanding as of October 1, 2011:
24,981,455

HAEMONETICS CORPORATION
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ITEM 1. FINANCIAL STATEMENTS

HAEMONETICS CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Unaudited in thousands, except per share data)

	Three Months Ended		Six Months Ended	
	October 1, 2011	October 2, 2010	October 1, 2011	October 2, 2010
Net revenues	$ 179,445	$ 166,833	$ 350,014	$ 329,872
Cost of goods sold	89,496	79,078	171,316	155,655
Gross profit	89,949	87,755	178,698	174,217
Operating expenses:				
Research and development	10,350	7,954	18,959	15,875
Selling, general and administrative	62,613	52,790	118,844	107,144
Contingent consideration income	(1,580)	(1,894)	(1,580)	(1,894)
Total operating expenses	71,383	58,850	136,223	121,125
Operating income	18,566	28,905	42,475	53,092
Other income, net	445	254	230	442
Income before provision for income taxes	19,011	29,159	42,705	53,534
Provision for income taxes	5,131	7,821	11,877	14,277
Net income	$ 13,880	$ 21,338	$ 30,828	$ 39,257
Basic income per common share				
Net income	$ 0.55	$ 0.86	$ 1.21	$ 1.58
Income per common share assuming dilution				
Net income	$ 0.54	$ 0.85	$ 1.18	$ 1.54
Weighted average shares outstanding				
Basic	25,418	24,686	25,575	24,913
Diluted	25,843	25,228	26,029	25,459

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

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HAEMONETICS CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	October 1, 2011 (unaudited)	April 2, 2011
ASSETS		
Current assets:		
Cash and cash equivalents	$ 183,421	$ 196,707
Accounts receivable, less allowance of $2,283 at October 1, 2011 and $1,799 at April 2, 2011	129,242	127,166
Inventories, net	101,444	84,387
Deferred tax asset, net	9,790	9,674
Prepaid expenses and other current assets	17,203	30,897
Total current assets	441,100	448,831
Property, plant and equipment:		
Land, building, and building improvements	55,127	52,359
Plant equipment and machinery	132,124	128,612
Office equipment and information technology	85,347	83,258
Haemonetics equipment	217,471	211,455
Total property, plant and equipment	490,069	475,684
Less: accumulated depreciation	(333,203)	(320,156)
Net property, plant and equipment	156,866	155,528
Other assets:		
Intangible assets, less amortization of $49,320 at October 1, 2011 and $43,827 at April 2, 2011	98,847	101,789
Goodwill	115,582	115,367
Deferred tax asset, long term	1,353	1,291
Other long-term assets	9,974	10,458
Total other assets	225,756	228,905
Total assets	$ 823,722	$ 833,264
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Notes payable and current maturities of long-term debt	$ 3,080	$ 913
Accounts payable	29,759	28,323
Accrued payroll and related costs	26,780	27,039
Accrued income taxes	5,361	6,033
Deferred tax liability	123	107
Other liabilities	45,703	46,256

Total current liabilities		110,806		108,671
Long-term debt, net of current maturities		3,332		3,966
Long-term deferred tax liability		18,005		18,669
Other long-term liabilities		13,302		15,822
Commitments and contingencies (Note 10)				
Stockholders equity:				
Common stock, $.01 par value; Authorized 150,000,000 shares; Issued and outstanding 24,981,455 shares at October 1, 2011 and 25,660,393 shares at April 2, 2011		249		256
Additional paid-in capital		304,517		302,709
Retained earnings		364,726		373,630
Accumulated other comprehensive income		8,785		9,541
Total stockholders equity		678,277		686,136
Total liabilities and stockholders equity	$	823,722	$	833,264

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

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HAEMONETICS CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited in thousands)

	Six Months Ended	
	October 1, 2011	October 2, 2010
Cash Flows from Operating Activities:		
Net income	$ 30,828	$ 39,257
Adjustments to reconcile net income to net cash provided by operating activities:		
Non cash items:		
Depreciation and amortization	24,619	24,690
Stock compensation expense	4,701	4,089
Loss on sales of property, plant and equipment	278	316
Unrealized loss from hedging activities	1,080	1,133
Contingent consideration income	(1,580)	(1,894)
Reversal of interest expense on contingent consideration	(574)	(493)
Change in operating assets and liabilities:		
Increase in accounts receivable, net	(1,332)	(837)
Increase in inventories	(15,390)	(3,900)
Decrease in prepaid income taxes	12,283	6,849
Increase in other assets and other long-term liabilities	(1,267)	(3,727)
Tax benefit of exercise of stock options	952	946
Decrease in accounts payable and accrued expenses	(2,059)	(22,143)
Net cash provided by operating activities	52,539	44,286
Cash Flows from Investing Activities:		
Capital expenditures on property, plant and equipment	(23,843)	(24,088)
Proceeds from sale of property, plant and equipment	130	262
Net cash used in investing activities	(23,713)	(23,826)
Cash Flows from Financing Activities:		
Payments on long-term real estate mortgage	(634)	(166)
Net increase/(decrease) in short-term loans	1,992	(5,249)
Employee stock purchase plan	1,847	1,645
Exercise of stock options	4,707	5,841
Excess tax benefit on exercise of stock options	333	628
Share repurchase	(49,998)	(50,000)
Net cash used in financing activities	(41,753)	(47,301)
Effect of exchange rates on cash and cash equivalents	(359)	328
Net decrease in Cash and Cash Equivalents	(13,286)	(26,513)
Cash and Cash Equivalents at Beginning of Year	196,707	141,562
Cash and Cash Equivalents at End of Period	$ 183,421	$ 115,049

Non-cash Investing and Financing Activities:				
Transfers from inventory to fixed assets for placements of Haemonetics equipment	$	6,292	$	3,710
Supplemental Disclosures of Cash Flow Information:				
Interest paid	$	220	$	251
Income taxes paid	$	2,288	$	6,941

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

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HAEMONETICS CORPORATION AND SUBSIDIARIES

NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION

Our accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) in the United States for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of our management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. All significant intercompany transactions have been eliminated. Certain reclassifications were made to prior year balances to conform to the presentation of the financial statements for the six months ended October 1, 2011. Operating results for the six month period ended October 1, 2011 are not necessarily indicative of the results that may be expected for the full fiscal year ending March 31, 2012, or any other interim period. These unaudited consolidated financial statements should be read in conjunction with our audited consolidated financial statements and footnotes included in our annual report on Form 10-K for the fiscal year ended April 2, 2011.

The Company considers events or transactions that occur after the balance sheet date but prior to the issuance of the financial statements to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. Subsequent events have been evaluated, and these financial statements reflect those material items that arose after the balance sheet date but prior to the issuance of the financial statements that would be considered recognized subsequent events. There were no material recognized subsequent events recorded in the October 1, 2011 consolidated financial statements.

Our fiscal year ends on the Saturday closest to the last day of March. Fiscal years 2012 and 2011 include 52 weeks with all four quarters each having 13 weeks.

2. RECENT ACCOUNTING PRONOUNCEMENTS

In May 2011, the FASB issued Accounting Standards Update No. 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs.* Update No. 2011-04 updates the accounting guidance related to fair value measurements that results in a consistent definition of fair value and common requirements for measurement of and disclosure about fair value between U.S. GAAP and International Financial Reporting Standards (IFRS). The updated guidance is effective for interim and annual periods beginning after December 15, 2011. Early application is not permitted. We are currently evaluating the potential impact of Update No. 2011-04 on our consolidated financial statements. This statement is effective for our fourth quarter of fiscal year 2012.

In June 2011, the FASB issued Accounting Standards Update No. 2011-05, *Comprehensive Income (Topic 220): Presentation of Comprehensive Income*. Update No. 2011-05 updates the disclosure requirements for comprehensive income to include total comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The updated guidance does not affect how earnings per share is calculated or presented. The updated guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011, and should be applied retrospectively. Early adoption is permitted and amendments do not require any transition disclosures. This statement is effective in our first quarter of fiscal year 2013.

In September 2011, the FASB issued Accounting Standards Update No. 2011-08, *Intangibles Goodwill and Other (Topic 350)*. ASU 2011-08 allows entities to first assess qualitatively whether it is necessary to perform the two-step goodwill impairment test. If an entity believes, as a result of its qualitative assessment, that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, the quantitative two-step goodwill impairment test is required. An entity has the unconditional option to bypass the qualitative assessment and proceed directly to performing the first step of the goodwill impairment test. The Company anticipates that the adoption of this standard will not have a material impact on its consolidated financial statements and footnote disclosures.

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Standards Implemented

In October 2009, the FASB issued Accounting Standards Update No. 2009-13, *Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements*, and Accounting Standards Update No. 2009-14, *Software (Topic 985): Certain Revenue Arrangements That Include Software* (the Updates). The Updates provide guidance on arrangements that include software elements, including tangible products that have software components that are essential to the functionality of the tangible product and will no longer be within the scope of the software revenue recognition guidance, and software-enabled products that will now be subject to other relevant revenue recognition guidance. The Updates also provide authoritative guidance on revenue arrangements with multiple deliverables that are outside the scope of the software revenue recognition guidance. Under the new guidance, when vendor specific objective evidence or third party evidence of fair value for deliverables in an arrangement cannot be determined, a best estimate of the selling price is required to allocate arrangement consideration using the relative selling price method. The Updates also include new disclosure requirements on how the application of the relative selling price method affects the timing and amount of revenue recognition. On April 3, 2011, the Company adopted this guidance, which did not have a material impact on our financial position or results of operations.

In December 2010, the FASB issued Accounting Standards Update No. 2010-29, *Business Combinations (Topic 805): Disclosure of Supplementary Pro Forma Information for Business Combinations*. Update No. 2010-29 clarifies paragraph 805-10-50-2(h) to require public entities that enter into business combinations that are material on an individual or aggregate basis to disclose pro forma information for such business combinations that occurred in the current reporting period, including pro forma revenue and earnings of the combined entity as though the acquisition date had been as of the beginning of the comparable prior annual reporting period only. We did not complete any material business acquisitions during the six months ended October 1, 2011 thus the disclosure requirements were not applicable for the period.

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3. EARNINGS PER SHARE (EPS)

The following table provides a reconciliation of the numerators and denominators of the basic and diluted earnings per share computations. Basic EPS is computed by dividing net income by weighted average shares outstanding. Diluted EPS includes the effect of potentially dilutive common shares.

	Three Months Ended	
	October 1, 2011	October 2, 2010
	(in thousands, except per share amounts)	
Basic EPS		
Net income	$ 13,880	$ 21,338
Weighted average shares	25,418	24,686
Basic income per share	$ 0.55	$ 0.86
Diluted EPS		
Net income	$ 13,880	$ 21,338
Basic weighted average shares	25,418	24,686
Net effect of common stock equivalents	425	542
Diluted weighted average shares	25,843	25,228
Diluted income per share	$ 0.54	$ 0.85

	Six Months Ended	
	October 1, 2011	October 2, 2010
	(in thousands, except per share amounts)	
Basic EPS		
Net income	$ 30,828	$ 39,257
Weighted average shares	25,575	24,913
Basic income per share	$ 1.21	$ 1.58
Diluted EPS		
Net income	$ 30,828	$ 39,257
Basic weighted average shares	25,575	24,913
Net effect of common stock equivalents	454	546
Diluted weighted average shares	26,029	25,459

Diluted income per share	$	1.18	$	1.54

Weighted average shares outstanding, assuming dilution, excludes the impact of 0.4 million and 1.1 million stock options for the second quarter of fiscal year 2012 and 2011, respectively, 0.4 million and 0.8 million stock options for the first six months of fiscal year 2012 and 2011, respectively, because these securities were anti-dilutive during the noted periods.

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4. STOCK-BASED COMPENSATION

Stock-based compensation expense of $4.7 million and $4.1 million was recognized for the six months ended October 1, 2011 and October 2, 2010, respectively. The related income tax benefit recognized was $1.3 million for the six months ended October 1, 2011 and October 2, 2010.

The weighted average fair value for our options granted in the first six months of fiscal year 2012 and 2011 was $18.27 and $16.89, respectively. The assumptions utilized for estimating the fair value of option grants during the periods presented are as follows:

	Six Months Ended	
	October 1, 2011	October 2, 2010
Stock Options Black-Scholes assumptions (weighted average):		
Volatility	27.42%	28.33%
Expected life (years)	4.9	4.9
Risk-free interest rate	1.60%	2.43%
Dividend yield	0.00%	0.00%

During the six months ended October 1, 2011 and October 2, 2010, there were 41,067 and 35,992 shares, respectively, purchased under the ESPP. They were purchased at $46.80 and $45.70 per share, respectively, under the ESPP.

5. PRODUCT WARRANTIES

We generally provide a warranty on parts and labor for one year after the sale and installation of each device. We also warrant our disposables products through their use or expiration. We estimate our potential warranty expense based on our historical warranty experience, and we periodically assess the adequacy of our warranty accrual and make adjustments as necessary.

	Six Months Ended	
	October 1, 2011	October 2, 2010
	(in thousands)	
Warranty accrual as of the beginning of the period	$ 1,273	$ 903
Warranty provision	603	699
Warranty spending	(856)	(940)
Warranty accrual as of the end of the period	$ 1,020	$ 662

6. COMPREHENSIVE INCOME

Comprehensive income is the total of net income and all other non-owner changes in stockholders equity. Other non-owner changes are primarily foreign currency translation, the change in our net minimum pension liability, and the changes in fair value of the effective portion of our outstanding cash flow hedge contracts.

A summary of the components of other comprehensive income is as follows:

(in thousands)	Three Months Ended October 1, 2011	Three Months Ended October 2, 2010
Net income	$ 13,880	$ 21,338
Other comprehensive income:		
Net change in minimum pension liability, net of tax		27
Foreign currency translation	(2,447)	7,481
Unrealized loss on cash flow hedges, net of tax	(1,566)	(4,519)
Reclassifications into earnings of cash flow hedge losses, net of tax	1,259	149
Total comprehensive income	$ 11,126	$ 24,476

(in thousands)	Six Months Ended October 1, 2011	Six Months Ended October 2, 2010
Net income	$ 30,828	$ 39,257
Other comprehensive income:		
Net change in minimum pension liability, net of tax	(21)	(22)
Foreign currency translation	(742)	3,234
Unrealized loss on cash flow hedges, net of tax	(2,889)	(4,069)
Reclassifications into earnings of cash flow hedge losses, net of tax	2,896	118
Total comprehensive income	$ 30,072	$ 38,518

7. INVENTORIES

Inventories are stated at the lower of cost or market and include the cost of material, labor and manufacturing overhead. Cost is determined on the first-in, first-out method.

	October 1, 2011	April 2, 2011
	(in thousands)	
Raw materials	$ 35,333	$ 26,404
Work-in-process	4,301	4,352
Finished goods	61,810	53,631
	$ 101,444	$ 84,387

8. DERIVATIVES AND FAIR VALUE MEASUREMENTS

We manufacture, market and sell our products globally. For the six months ended October 1, 2011, approximately 51% of our sales are generated outside the U.S. generally in local currencies. We also incur certain manufacturing, marketing and selling costs in international markets in local currency. Accordingly, our earnings and cash flows are exposed to market risk from changes in foreign currency exchange rates relative to the U.S. dollar, our reporting currency.

We have a program in place that is designed to mitigate our exposure to changes in foreign currency exchange rates. That program includes the use of derivative financial instruments to minimize for a period of time, the unforeseen

impact on our financial results from changes in foreign exchange rates. We utilize foreign currency forward contracts to hedge the anticipated cash flows from transactions denominated in foreign currencies, primarily the Japanese Yen and the Euro, and to a lesser extent the Swiss Franc, British Pound Sterling and the Canadian Dollar. This does not eliminate the volatility of foreign exchange rates, but because we generally enter into forward contracts one year out, rates are fixed for a one-year period, thereby facilitating financial planning and resource allocation.

Designated Foreign Currency Hedge Contracts

All of our designated foreign currency hedge contracts as of October 1, 2011 and April 2, 2011 were cash flow hedges under ASC Topic 815, *Derivatives and Hedging*. We record the effective portion of any change in the fair value of designated foreign currency hedge contracts in Other Comprehensive Income in the Statement of Stockholders Equity until the related third-party transaction occurs. Once the related third-party transaction occurs, we reclassify the effective portion of any related gain or loss on the designated foreign currency hedge contracts to earnings. In the event the hedged forecasted transaction does not occur, or it becomes probable that it will not occur, we would reclassify the amount of any gain or loss on the related cash flow hedge to earnings at that time. We had designated foreign currency hedge contracts outstanding in the contract amount of $153.6 million as of October 1, 2011 and $154.8 million as of April 2, 2011.

During the six months ended October 1, 2011, we recognized net losses of $2.9 million in earnings on our cash flow hedges. For the six months ended October 1, 2011, $2.9 million of losses, net of tax, were recorded in Accumulated Other Comprehensive Income to recognize the effective portion of the fair value of any designated foreign currency hedge contracts that are, or previously were, designated as foreign currency cash flow hedges, as compared to net losses of $4.1 million as of October 2, 2010. At October 1, 2011, losses of $2.9 million, net of tax, may be reclassified to earnings within the next twelve months. All currency cash flow hedges outstanding as of October 1, 2011 mature within twelve months.

Non-designated Foreign Currency Contracts

We manage our exposure to changes in foreign currency on a consolidated basis to take advantage of offsetting transactions and balances. We use foreign currency forward contracts as a part of our strategy to manage exposure related to foreign currency denominated monetary assets and liabilities. These foreign currency forward contracts are entered into for periods consistent with currency transaction exposures, generally one month. They are not designated as cash flow or fair value hedges under ASC Topic 815. These forward contracts are marked-to-market with changes in fair value recorded to earnings. We had non-designated foreign currency hedge contracts under ASC Topic 815 outstanding in the contract amount of $48.2 million as of October 1, 2011 and $45.9 million as of April 2, 2011.

Fair Value of Derivative Instruments

The following table presents the effect of our derivative instruments designated as cash flow hedges and those not designated as hedging instruments under ASC Topic 815 in our consolidated statement of income for the six months ended October 1, 2011.

Derivative Instruments *(in thousands)*	Amount of Loss Recognized in AOCI (Effective Portion)	Reclassified from AOCI into Earnings (Effective Portion)	Location in Statement of Operations	Amount Excluded from Effectiveness Testing (*)	Location in Statement of Operations
Designated foreign currency hedge contracts	$ (2,889)	$ 2,896	Net revenues, COGS, and SG&A	$ 167	Other income
Non-designated foreign currency hedge contracts				1,670	Other expense
	$ (2,889)	$ 2,896		$ 1,837	

(*) We exclude the difference between the spot rate and hedge forward rate from our effectiveness testing.

We did not have fair value hedges or net investment hedges outstanding as of October 1, 2011 or April 2, 2011.

ASC Topic 815 requires all derivative instruments to be recognized at their fair values as either assets or liabilities on the balance sheet. We determine the fair value of our derivative instruments using the framework prescribed by ASC Topic 820, *Fair Value Measurements and Disclosures*, by considering the estimated amount we would receive or pay to sell or transfer these instruments at the reporting date and by taking into account current interest rates, currency exchange rates, the creditworthiness of the counterparty for assets, and our creditworthiness for liabilities. In certain instances, we may utilize financial models to measure fair value. Generally, we use inputs that include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; other observable inputs for the asset or liability; and inputs derived principally from, or corroborated by, observable market data by correlation or other means. As of October 1, 2011, we have classified our derivative assets and liabilities within Level 2 of the fair value

hierarchy prescribed by ASC Topic 815, as discussed below, because these observable inputs are available for substantially the full term of our derivative instruments.
The following tables present the fair value of our derivative instruments as they appear in our consolidated balance sheets as of October 1, 2011 by type of contract and whether it is a qualifying hedge under ASC Topic 815.

(in thousands)	Location in Balance Sheet	Balance as of October 1, 2011	Balance as of April 2, 2011
Derivative Assets:			
Designated foreign currency hedge contracts	Other current assets	$ 1,541	$ 2,563
		$ 1,541	$ 2,563
Derivative Liabilities:			
Designated foreign currency hedge contracts	Other current liabilities	$ 4,185	$ 4,174
		$ 4,185	$ 4,174

Other Fair Value Measurements
ASC Topic 820, *Fair Value Measurements and Disclosures*, defines fair value, establishes a framework for measuring fair value in accordance with U.S. GAAP, and expands disclosures about fair value measurements. ASC Topic 820 does not require any new fair value measurements; rather, it applies to other accounting pronouncements that require or permit fair value measurements. In accordance with ASC Topic 820, for the quarter and the six months ended October 1, 2011, we applied the requirements under ASC Topic 820 to our non-financial assets and non-financial liabilities. As we did not have an impairment of any non-financial assets or non-financial liabilities, there was no disclosure required relating to our non-financial assets or non-financial liabilities.
On a recurring basis, we measure certain financial assets and financial liabilities at fair value, including our money market funds, foreign currency hedge contracts, and contingent consideration. ASC Topic 820 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. We base fair value upon quoted market prices, where available. Where quoted market prices or other observable inputs are not available, we apply valuation techniques to estimate fair value.
ASC Topic 820 establishes a three-level valuation hierarchy for disclosure of fair value measurements. The categorization of assets and liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the measurement of fair value. The three levels of the hierarchy are defined as follows:

Level 1 Inputs to the valuation methodology are quoted market prices for identical assets or liabilities.

Level 2 Inputs to the valuation methodology are other observable inputs, including quoted market prices for similar assets or liabilities and market-corroborated inputs.

Level 3 Inputs to the valuation methodology are unobservable inputs based on management s best estimate of inputs market participants would use in pricing the asset or liability at the measurement date, including assumptions about risk.

Our money market funds carried at fair value are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices.

We recognize all derivative financial instruments in our consolidated financial statements at fair value in accordance with ASC Topic 815, *Derivatives and Hedging*. We determine the fair value of these instruments using the framework prescribed by ASC Topic 820 by considering the estimated amount we would receive or pay to terminate these agreements at the reporting date and by taking into account current spot rates, the creditworthiness of the counterparty for assets, and our creditworthiness for liabilities. We have classified our foreign currency hedge contracts within Level 2 of the fair value hierarchy because these observable inputs are available for substantially the full term of our derivative instruments. The fair value of our foreign currency hedge contracts is the estimated amount that the Company would receive or pay upon liquidation of the contracts, taking into account the change in currency exchange rates.

Fair Value Measured on a Recurring Basis

Financial assets and financial liabilities measured at fair value on a recurring basis consist of the following as of October 1, 2011:

(in thousands)	Quoted Market Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets				
Money market funds	$ 143,035	$	$	$ 143,035
Foreign currency hedge contracts		1,541		1,541
	$ 143,035	$ 1,541	$	$ 144,576
Liabilities				
Foreign currency hedge contracts	$	$ 4,185	$	$ 4,185
	$	$ 4,185	$	$ 4,185

Release of Neoteric contingent consideration

Under ASC Topic 805, *Business Combinations*, we established a liability for payments that we might make in the future to former shareholders of Neoteric that are tied to the performance of the Blood Track business for the first three years post acquisition, beginning with fiscal year 2010. We have reviewed the expected performance versus the necessary thresholds of performance for the former shareholders to receive additional performance payments and we recorded an adjustment to the fair value of the contingent consideration as contingent consideration income of $1.6 million in the accompanying consolidated statements of income, reversing the remaining liability, as the expected performance thresholds will not be achieved.

In September 2011, we entered into an agreement to release the Company from the contingent consideration due to the former shareholders of Neoteric. Under the terms of the agreement, the former shareholders of Neoteric received $0.7 million in exchange for releasing the Company from any future claims for contingent consideration. The Company paid the $0.7 million settlement amount during September 2011 and has recorded the associated expense in the selling, general and administrative line item in the accompanying consolidated statements of income.

Other Fair Value Disclosures

The fair value of our real estate mortgage obligation was $3.7 million and $4.1 million at October 1, 2011 and April 2, 2011, respectively.

9. INCOME TAXES

The Company s reported tax rate was 27.0% and 27.8% for the three and six month periods ended October 1, 2011, respectively. Our reported tax rate is lower than the federal statutory tax rate in both periods reported primarily due to lower foreign tax rates, including tax benefits associated with our Swiss operations.

We conduct business globally and, as a result, file consolidated federal, consolidated and separate state and foreign income tax returns in multiple jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world in jurisdictions including the U.S., Japan, Germany, France, the United Kingdom, and Switzerland. With few exceptions, we are no longer subject to U.S. federal, state and local, or foreign income tax examinations for years before 2007.

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10. COMMITMENTS AND CONTINGENCIES

We are presently engaged in various legal actions, and although ultimate liability cannot be determined at the present time, we believe, based on consultation with counsel, that any such liability will not materially affect our consolidated financial position or our results of operations.

During the first quarter of fiscal 2012, we received customer complaints in Europe regarding a quality issue with our High Separation Core Bowl (HS Core), a plasma disposable product used primarily to collect plasma for transfusion. Certain of these customers have also made claims regarding financial losses alleged to have been incurred as a result of this matter. Total aggregate claims submitted to date by customers relating to this issue are approximately $8.5 million. We do not expect any additional material claims from our customers. We are in the process of evaluating the submitted claims and continue to work with affected customers to minimize disruption to their operations and ultimately determine the validity and resolution of the submitted claims. Although this process is not completed, we have determined that it is probable that we will compensate certain affected customers in order to resolve their claims. We believe our ultimate liability will be less than the total claims submitted to date. Our current best estimate of the liability associated with this matter is $2.4 million, and accordingly we have recorded this amount as an expense within selling, general and administrative expenses as of October 1, 2011. We cannot determine currently whether a liability greater than $2.4 million will ultimately be incurred. We are also in the process of determining the extent to which claims may be recoverable under the Company s insurance policies. We do not currently believe that liabilities related to this matter will materially affect our consolidated financial position and liquidity.

11. SEGMENT INFORMATION

Segment Definition Criteria

We manage our business on the basis of one operating segment: the design, manufacture, and marketing of blood management solutions. Our chief operating decision-maker uses consolidated results to make operating and strategic decisions. Manufacturing processes, as well as the regulatory environment in which we operate, are largely the same for all product lines.

Enterprise Wide Disclosures about Product and Services

We have four global product families: plasma, blood center, hospital, and software solutions.

Our products include equipment devices and the related disposables used with these devices. Disposables include the plasma, blood center, and hospital product families. Plasma consists of the disposables used to perform apheresis for the separation of whole blood components and subsequent collection of plasma to be used as a raw material for biologically derived pharmaceuticals (also known as source plasma). Blood center consists of disposables which separate whole blood for the subsequent collection of platelets, plasma, red cells, or a combination of these components for transfusion to patients. Hospital consists of surgical disposables (principally the Cell Saver® and Cell Saver Elite ® autologous blood recovery systems targeted to procedures that involve rapid, high volume blood loss such as cardiovascular surgeries and the cardioPAT® cardiovascular perioperative autotransfusion system designed to remain with the patient following surgery to recover blood and the patient s red cells to prepare them for reinfusion), the OrthoPAT® orthopedic perioperative autotransfusion system designed to operate both during and after surgery to recover and wash the patient s red cells to prepare them for reinfusion, and diagnostics products (principally the TEG® Thrombelastograph® hemostasis analyzer used to help assess a surgical patient s hemostasis (blood clotting ability) during and after surgery).

Disposables (single-use sterile kits used in our devices for collection or salvage of blood products) are marketed in our plasma, blood center, and hospital product businesses. Plasma disposables are used with our PCS®2 devices to perform apheresis for the collection of plasma to be used as a raw material for biologically derived pharmaceuticals (also known as

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source plasma). Blood center disposables are used with our MCS+ device to collect one or more blood components (principally platelets but also red cells and plasma) for transfusion to patients. The Hospital business consists of disposables used with our Cell Saver® and cardioPAT® devices to recover red cells from blood lost in a surgical procedure so that these may be made available for reinfusion to the patient (autotransfusion). OrthoPAT® disposables are used for autotransfusion during and immediately following orthopedic surgeries. Diagnostics products principally reflect sales of diagnostic reagents and the TEG® Thrombelastograph® hemostasis analyzer which profiles a patient s blood clotting characteristics.

Software solutions include information technology platforms that assist blood centers, plasma centers, and hospitals to more effectively manage regulatory compliance and operational efficiency.

Revenues from External Customers:

	Three Months Ended	
	October 1, 2011	October 2, 2010
	(in thousands)	
Disposable revenues		
Plasma disposables	$ 64,408	$ 56,514
Blood center disposables		
Platelet	42,195	39,746
Red cell	11,645	11,294
	53,840	51,040
Hospital disposables		
Surgical	16,206	16,011
OrthoPAT	7,295	8,281
Diagnostics	5,659	4,647
	29,160	28,939
Disposables revenue	147,408	136,493
Software solutions	17,199	16,125
Equipment & other	14,838	14,215
Net revenues	$ 179,445	$ 166,833

	Six Months Ended	
	October 1, 2011	October 2, 2010
	(in thousands)	
Disposable revenues		
Plasma disposables	$ 127,168	$ 112,431
Blood center disposables		
Platelet	79,504	76,063
Red cell	23,514	22,608
	103,018	98,671
Hospital disposables		

Surgical	31,948	32,362
OrthoPAT	15,049	17,238
Diagnostics	11,273	9,355
	58,270	58,955
Disposables revenue	288,456	270,057
Software solutions	35,359	32,585
Equipment & other	26,199	27,230
Net revenues	$ 350,014	$ 329,872

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12. REORGANIZATION

During the six months ended October 1, 2011, the Company s restructuring activities primarily consist of reorganization within our research and development, manufacturing and software operations. Employee-related costs primarily consist of employee severance and benefits. Facility-related costs primarily consist of charges associated with closing facilities, related lease obligations, and other related costs.

For the six months ended October 1, 2011, the Company incurred $3.0 million of restructuring charges. Restructuring expenses have been primarily included as a component of selling, general and administrative expense in the accompanying statements of income. We anticipate that the Company will incur approximately $5 to $6 million in additional restructuring charges related to these initiatives over the remaining six months of fiscal year 2012.

The following summarizes the restructuring activity for the six months ended October 1, 2011 and October 2, 2010, respectively:

	Six Months Ended October 1, 2011			
				Restructuring Accrual
(in thousands)	Balance at April 2, 2011	Cost Incurred	Payments	Balance at October 1, 2011
Employee-related costs	$ 2,782	$ 2,528	$ (2,327)	$ 2,983
Facility-related costs	889	480	(713)	656
	$ 3,671	$ 3,008	$ (3,040)	$ 3,639

	Six Months Ended October 2, 2010			
				Restructuring Accrual
(in thousands)	Balance at April 3, 2010	Cost Incurred	Payments	Balance at October 2, 2010
Employee-related costs	$ 9,761	$ 1,400	$ (5,529)	$ 5,632
	$ 9,761	$ 1,400	$ (5,529)	$ 5,632

13. CAPITALIZATION OF SOFTWARE DEVELOPMENT COSTS

For costs incurred related to the development of software to be sold, leased, or otherwise marketed, the Company applies the provisions of ASC Topic 985-20, *Software*, which specifies that costs incurred internally in researching and developing a computer software product should be charged to expense until technological feasibility has been established for the product. Once technological feasibility is established, all software costs should be capitalized until the product is available for general release to customers.

The Company capitalized $2.8 million and $3.4 million in software development costs for ongoing initiatives during the six month periods ended October 1, 2011 and October 2, 2010, respectively. At October 1, 2011 and April 2, 2011, we have a total of $12.2 million and $13.4 million, respectively, of costs capitalized related to in process software development initiatives. The costs capitalized for each project are included in intangible assets in the consolidated financial statements.

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ITEM 2. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) should be read in conjunction with both our interim consolidated financial statements and notes thereto which appear elsewhere in this Quarterly Report on Form 10-Q and our annual consolidated financial statements, notes thereto, and the MD&A contained in our fiscal year 2011 Annual Report on Form 10-K filed with the Securities and Exchange Commission (the SEC) on May 26, 2011. The following discussion may contain forward-looking statements and should be read in conjunction with the **Cautionary Statement Regarding Forward-Looking Information** beginning on page 28.

Our Business

Haemonetics is a blood management solutions company. Anchored by our medical device systems, we also provide information technology platforms and value added services to provide customers with business solutions which support improved clinical outcomes for patients and efficiency in the blood supply chain.

Our medical device systems automate the collection and processing of donated blood; assess likelihood for blood loss; salvage and process blood from surgery patients; and dispense and track blood inventory in the hospital. These systems include devices and single-use, proprietary disposable sets (disposables) that operate only with our specialized devices. Specifically, our plasma and blood center systems allow users to collect and process only the blood component(s) they target plasma, platelets, or red blood cells increasing donor and patient safety as well as collection efficiencies. Our blood diagnostics system assesses hemostasis (a patient s clotting ability) to aid clinicians in assessing the cause of bleeding resulting in overall reductions in blood product usage. Our surgical blood salvage systems allow surgeons to collect the blood lost by a patient in surgery, cleanse the blood, and make it available for transfusion back to the patient. Our blood tracking systems automate the distribution of blood products in the hospital. Our business services products include blood management, Six Sigma, and LEAN manufacturing consulting, which support our customers needs for regulatory compliance and operational efficiency in the blood supply chain.

We either sell our devices to customers (resulting in equipment revenue) or place our devices with customers subject to certain conditions. When the device remains our property, the customer has the right to use it for a period of time as long as the customer meets certain conditions we have established, which, among other things, generally include one or more of the following:

- Purchase and consumption of a minimum level of disposables products;
- Payment of monthly rental fees; and
- An asset utilization performance metric, such as performing a minimum level of procedures per month per device.

Our disposables revenue stream, which includes the sales of disposables and fees for the use of our equipment, accounted for approximately 82.4% and 81.9% of our total revenues for the first six months of fiscal year 2012 and 2011, respectively.

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Financial Summary

	Three Months Ended			Six Months Ended		
(in thousands, except per share data)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)
Net revenues	$ 179,445	$ 166,833	7.6%	$ 350,014	$ 329,872	6.1%
Gross profit	$ 89,949	$ 87,755	2.5%	$ 178,698	$ 174,217	2.6%
% of net revenues	*50.1%*	*52.6%*		*51.1%*	*52.8%*	
Operating expenses	$ 71,383	$ 58,850	21.3%	$ 136,223	$ 121,125	12.5%
Operating income	$ 18,566	$ 28,905	(35.8%)	$ 42,475	$ 53,092	(20.0%)
% of net revenues	*10.3%*	*17.3%*		*12.1%*	*16.1%*	
Other income, net	$ 445	$ 254	75.2%	$ 230	$ 442	(48.0%)
Income before taxes	$ 19,011	$ 29,159	(34.8%)	$ 42,705	$ 53,534	(20.2%)
Provision for income tax	$ 5,131	$ 7,821	(34.4%)	$ 11,877	$ 14,277	(16.8%)
% of pre-tax income	*27.0%*	*26.8%*		*27.8%*	*26.7%*	
Net income	$ 13,880	$ 21,338	(35.0%)	$ 30,828	$ 39,257	(21.5%)
% of net revenues	*7.7%*	*12.8%*		*8.8%*	*11.9%*	
Earnings per share-diluted	$ 0.54	$ 0.85	(36.5%)	$ 1.18	$ 1.54	(23.4%)

Net revenues increased 7.6% and 6.1% for the second quarter and first six months, respectively, of fiscal year 2012 over the comparable periods of fiscal year 2011. Without the effects of foreign exchange which accounted for an increase of 2.3% and 2.5% for the second quarter and first six months, respectively, of fiscal year 2012, net revenues increased 5.3% and 3.6% for the quarter and six months ended October 1, 2011. This increase reflects strong year over year revenue growth from our plasma, TEG and software businesses, offset by declines in our hospital businesses primarily due to a recall of certain of our OrthoPAT devices.

Gross profit increased 2.5% and 2.6% as compared to the second quarter and first six months, respectively, of fiscal year 2011. Without the effects of foreign exchange, which increased gross profit by 2.2% and 2.6% for the second quarter and first six months, respectively, of fiscal year 2012, gross profit increased 0.3% and was flat for the quarter and six months, respectively, ended October 1, 2011. Our gross profit margin decreased by 170 basis points for the first six months of fiscal year 2012. The decrease was primarily due to increased product quality costs and product mix associated with lower sales of hospital products and higher plasma disposable sales.

Operating expenses increased 21.3% and 12.5% for the second quarter and first six months, respectively, of fiscal year 2012 over the comparable periods of fiscal year 2011. Foreign exchange accounted for an increase in operating expenses of 5.5% and 4.6% for the quarter and six months, respectively. Without the effects of foreign exchange, operating expenses increased 15.8% and 7.9% in the second quarter and first six months, respectively, of fiscal year 2012. Higher operating expenses are attributable to increased restructuring costs, $2.4 million of expenses associated with customer claims arising from a quality matter with a plasma disposable product, and increased investment in research and development and sales and marketing. These increases were partially offset by lower expense associated with cash bonus compensation for this fiscal year.

Operating income decreased 35.8% and 20.0% for the second quarter and first six months of fiscal year 2012 over the comparable periods of fiscal year 2011. Foreign exchange accounted for a decrease of 4.6% and 1.9% for the second quarter and first six months, respectively, of fiscal year 2012. Without the effects of foreign exchange, operating income decreased 31.2% and 18.1% for the quarter and six months, respectively, as increases in operating expenses more than offset gross profit associated with revenue growth due to product mix and higher costs of quality.

Net income decreased 35.0% and 21.5% for the second quarter and first six months, respectively, of fiscal year 2012 over the comparable periods of fiscal year 2011. Without the effects of foreign exchange which accounted for a decrease in net income of 3.3% and 1.8% for the quarter and six months, respectively, net income decreased 31.7% and 19.7% for the

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quarter and six months ended October 1, 2011. The decrease in net income was attributable to the decline in operating income described above.

RESULTS OF OPERATIONS

Net Revenues by Geography

	Three Months Ended			Six Months Ended		
(in thousands)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)
United States	$ 86,339	$ 78,740	9.7%	$ 172,734	$ 158,049	9.3%
International	93,106	88,093	5.7%	177,280	171,823	3.2%
Net revenues	$ 179,445	$ 166,833	7.6%	$ 350,014	$ 329,872	6.1%

International Operations and the Impact of Foreign Exchange

Our principal operations are in the U.S., Europe, Japan and other parts of Asia. Our products are marketed in more than 80 countries around the world through a combination of our direct sales force and independent distributors and agents.

Our revenues generated outside the U.S. approximated 51% of net revenues for the first six months of fiscal year 2012 and 2011. Revenues in Japan accounted for approximately 16.9% and 16.5% of total revenues for the first six months of fiscal year 2012 and 2011, respectively. Revenues in Europe accounted for approximately 26.0% and 26.8% of net revenues for the first six months of fiscal year 2012 and 2011, respectively. International sales are generally conducted in local currencies, primarily the Japanese Yen and the Euro. As discussed above, our results of operations are impacted by changes in the value of the Yen and the Euro relative to the U.S. Dollar.

Please see section entitled Foreign Exchange in this discussion for a more complete explanation of how foreign currency affects our business and our strategy for managing this exposure.

Net Revenues by Product Type

	Three Months Ended			Six Months Ended		
(in thousands)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)
Disposables	$ 147,408	$ 136,493	8.0%	$ 288,456	$ 270,057	6.8%
Software solutions	17,199	16,125	6.7%	35,359	32,585	8.5%
Equipment & other	14,838	14,215	4.4%	26,199	27,230	(3.8%)
Net revenues	$ 179,445	$ 166,833	7.6%	$ 350,014	$ 329,872	6.1%

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Disposable Revenues by Product Type

	Three Months Ended			Six Months Ended		
(in thousands)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)	October 1, 2011	October 2, 2010	% Increase/ (Decrease)
Plasma disposables	$ 64,408	$ 56,514	14.0%	$ 127,168	$ 112,431	13.1%
Blood center disposables						
Platelet	42,195	39,746	6.2%	79,504	76,063	4.5%
Red cell	11,645	11,294	3.1%	23,514	22,608	4.0%
	$ 53,840	$ 51,040	5.5%	$ 103,018	$ 98,671	4.4%

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LYDALL, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Basis of Financial Statement Presentation

Description of Business

Lydall, Inc. and its subsidiaries (the “Company” or “Lydall”) design and manufacture specialty engineered nonwoven filtration media, industrial thermal insulating solutions, and thermal and acoustical barriers for filtration/separation and heat abatement and sound dampening applications.

On July 7, 2016, the Company completed an acquisition of the nonwoven and coating materials businesses primarily operating under the Texel (“Texel”) brand from ADS, Inc. (“ADS”), a Canadian based corporation. The Texel operations manufacture nonwoven needle punch materials and predominantly serve the geosynthetic, liquid filtration, and other industrial markets. The acquired businesses are included in the Company's Technical Nonwovens reporting segment.

On December 31, 2016, the Company completed an acquisition of the nonwoven needle punch materials businesses, operating under the Gutsche (“Gutsche”) brand, a German based corporation. The Gutsche operations manufacture nonwoven needle punch materials and predominantly serve the industrial filtration and high performance nonwoven markets. The acquired businesses are included in the Company's Technical Nonwovens reporting segment.

Basis of Presentation

The accompanying Condensed Consolidated Financial Statements include the accounts of Lydall, Inc. and its subsidiaries. All financial information is unaudited for the interim periods reported. All significant intercompany transactions have been eliminated in the Condensed Consolidated Financial Statements. The Condensed Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”). The operating results of Texel and Gutsche have been included in the Consolidated Statements of Operations beginning on their respective dates of acquisition. As part of the acquisition of Texel, the Company acquired a fifty percent interest in a joint venture, Afitex Texel Geosynthetiques Inc., which is accounted for under the equity method of accounting. The year-end Condensed Consolidated Balance Sheet was derived from the December 31, 2016 audited financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America. Management believes that all adjustments, which include only normal recurring adjustments necessary for a fair statement of the Company’s condensed consolidated financial position, results of operations and cash flows for the periods reported, have been included. For further information, refer to the audited consolidated financial statements and accompanying notes included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2016.

Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers (Topic 606)." The objective of this standard update is to remove inconsistent practices with regard to revenue recognition between US GAAP and IFRS. The standard intends to improve comparability of revenue recognition practices across entities, industries, jurisdictions and capital markets. ASU 2014-09 is effective for the Company’s interim and annual reporting periods beginning January 1, 2018, and is to be adopted using either a full retrospective or modified retrospective transition method with early adoption permitted for annual periods beginning after December 15, 2016. The Company anticipates adopting ASU 2014-09 under the modified retrospective transition method, with the cumulative effect of

initially adopting this standard recognized through retained earnings at the date of adoption.
The new standard requires new comprehensive qualitative and quantitative disclosures relating to the nature, amount, timing and uncertainty of revenue arising from contracts with customers, including significant judgments and estimates used when applying the guidance.
The Company is executing a project plan that includes a phased approach to implementing ASU 2014-09. During the remainder of 2017, the Company is completing the second phase which includes conversion activities, such as establishing policies, identifying system impacts, integration of the standard update into financial reporting processes and systems, and developing an understanding of the financial impact of this standard on the Company’s consolidated financial statements, including the cumulative effect adjustment to be recorded upon implementation of this standard
The Company continues to assess potential impacts to all of its segments under the new standard and has identified a potential impact to the timing of revenue recognition across all segments. The Company currently generally recognizes revenue at a point in time typically when products are shipped and risk of loss has transferred to the customer, whereas the implementation of the new standard will result in certain revenue streams moving to an over-time revenue recognition model. Under the new standard, the customized nature of some of our products combined with

contractual provisions that provide us with an enforceable right to payment will likely require the Company to recognize revenue related to certain revenue streams prior to the product being shipped to the customer. The Company anticipates the transition to the new standard will result in changes to revenue recognition practices, including areas described above, but the Company will be unable to quantify that impact until the second phase of the project has been completed.
Subsequent to the issuance of ASU No. 2014-09, the FASB has issued the following update; ASU No. 2016-20, “Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers”. The amendments in this update affects the guidance contained within ASU 2014-09 and will be assessed as part of the Company's revenue recognition project plan.
In July 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-11, “Inventory” (Topic 330): Simplifying the Measurement of Inventory." This ASU requires an entity to measure inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using last-in, first-out (“LIFO”) or the retail inventory method. This ASU is effective for fiscal years beginning after December 15, 2016. The adoption of this ASU did not have any impact on the Company’s consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)". This ASU requires entities that lease assets with lease terms of more than 12 months to recognize right-of-use assets and lease liabilities created by those leases on their balance sheets. This ASU will also require new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. This ASU is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company is currently evaluating the method and impact the adoption of ASU 2016-02 will have on the Company’s consolidated financial statements and disclosures.

In May 2017, the FASB issued ASU No. 2017-09, "Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting". This ASU requires an entity to apply modification accounting in Topic 718 when there are changes to the terms or conditions of a share-based payment award, unless the fair value, vesting conditions, and classification of the modified award are the same as the original award immediately before the original award is modified. This ASU is effective for fiscal years beginning after December 15, 2017, with early adoption permitted. The Company is currently evaluating the method and impact the adoption of ASU 2017-09 will have on the Company’s consolidated financial statements and disclosures.

In August 2017, the FASB issued ASU No. 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Account for Hedging Activities". This ASU provides various improvements revolving around the financial reporting of hedging relationships that will require an entity to amend the presentation and disclosure of hedging activities to better portray the economic results of an entity's risk management activities in its financial statements. This ASU will also require an entity with cash flow and net investment hedges existing at the date of the adoption to apply a cumulative-effect adjustment related to eliminating the separate measurement of ineffectiveness to accumulated other comprehensive income with a corresponding adjustment to the opening balance of retained earnings as of the beginning of the fiscal year that the entity adopts this ASU. This ASU is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company is currently evaluating the method and impact the adoption of ASU 2017-12 will have on the Company’s consolidated financial statements and disclosures.

2. Acquisitions

On December 31, 2016, the Company completed an acquisition of the nonwoven needle punch materials businesses, which include MGF Gutsche & Co GmbH KG, FRG and Gutsche Environmental Technology (Yixing) Co. Ltd., China, operating under Gutsche ("Gutsche"), a German based corporation. The Gutsche operations manufacture nonwoven needle punch materials and predominantly serve the industrial filtration and high performance nonwoven markets. The Company acquired one hundred percent of Gutsche for $57.6 million, net of a receivable of $3.0 million related to an estimated post-closing purchase price adjustment. In the second quarter of 2017, the Company finalized the post closing adjustment resulting in an increase in the purchase price of $0.4 million resulting in a final purchase price of $58.0 million. The purchase price was financed with a combination of cash on hand and $31.6 million of borrowings from the Company's amended $175 million credit facility. The assets and liabilities of Gutsche have been included in the Consolidated Balance Sheet at December 31, 2016. The acquired businesses are included in the Company's Technical Nonwovens reporting segment.

For the quarter ended September 30, 2017, Gutsche reported net sales and operating income of $13.9 million and $1.2 million, respectively. Operating income for the quarter ended September 30, 2017 included $0.1 million of purchase accounting inventory fair value step-up adjustments in cost of sales upon the sale of inventory. There were no sales or operating income for Gutsche during the quarter ended September 30, 2016 as the acquisition occurred on December 31, 2016.

For the nine months ended September 30, 2017, Gutsche reported net sales and operating income of $37.2 million and $2.1 million, respectively. Operating income for the nine months ended September 30, 2017 included $0.6 million of purchase accounting inventory fair value step-up adjustments in cost of sales upon the sale of inventory and $0.1 million of restructuring expenses.

There were no sales or operating income for Gutsche during the nine months ended September 30, 2016 as the acquisition occurred on December 31, 2016.

On July 7, 2016, the Company completed an acquisition of the nonwoven and coating materials businesses primarily operating under Texel from ADS, a Canadian based corporation. The Texel operations manufacture nonwoven needle punch materials and predominantly serve the geosynthetic, liquid filtration, and other industrial markets. The Company acquired one hundred percent of Texel for $102.7 million in cash, including a post-closing working capital adjustment. The purchase price was financed with a combination of cash on hand and $85.0 million of borrowings from the Company’s amended $175 million credit facility. As part of the acquisition, the Company acquired a fifty percent interest in a joint venture, Afitex Texel Geosynthetiques, Inc., with a fair value of $0.6 million. The joint venture is accounted for under the equity method of accounting. The operating results of the Texel business are reported within the Technical Nonwovens segment.

For the quarter ended September 30, 2017, Texel reported net sales and operating income of $26.5 million and $3.2 million, respectively. For the quarter ended September 30, 2016, Texel reported net sales and operating income of $23.2 million and $1.7 million, respectively. Operating income for the quarter ended September 30, 2016 included $1.6 million of purchase accounting inventory fair value step-up adjustments in cost of sales upon the sale of inventory.

For the nine months ended September 30, 2017, Texel reported net sales and operating income of $62.3 million and $5.1 million, respectively. Operating income for the nine months ended September 30, 2017 included $0.5 million of purchase accounting inventory fair value step-up adjustments in cost of sales upon the sale of inventory. For the nine months ended September 30, 2016, Texel reported net sales and operating income of $23.2 million and $1.7 million, respectively. Operating income for the nine months ended September 30, 2016 included $1.6 million of purchase accounting inventory fair value step-up adjustments in cost of sales upon the sale of inventory.

The following table summarizes the fair values of identifiable assets acquired and liabilities assumed at the date of the acquisitions:

In thousands	Texel	Gutsche
Cash and cash equivalents	$1,610	$9,400
Accounts receivable	13,355	7,736
Inventories	17,525	6,417
Prepaid expenses and other current assets	2,469	1,125
Non-current environmental indemnification receivable (Note 14)	925	—
Property, plant and equipment, net	31,525	7,969
Investment in joint venture	616	—
Goodwill (Note 4)	28,655	19,729
Other intangible assets, net (Note 4)	22,887	15,622
Other long term assets	—	1,545
Total assets acquired	$119,567	$69,543
Current liabilities	$(8,520)	$(8,376)
Long-term environmental remediation liability (Note 14)	(925)	—
Deferred tax liabilities	(7,413)	(470)
Other long-term liabilities	—	(2,742)
Total liabilities assumed	(16,858)	(11,588)
Net assets acquired	$102,709	$57,955

The final purchase price allocation related to Texel reflects post-closing adjustments pursuant to the terms of the Texel Stock Purchase Agreement. The final purchase price allocation related to Gutsche reflects post-closing adjustments pursuant to the terms of the Gutsche Share Purchase Agreement.

The following table reflects the actual operating results of the Company for the quarter and nine months ended September 30, 2017 and the unaudited pro forma operating results of the Company for the quarter and nine months ended September 30, 2016, which give effect to the acquisitions of Texel and Gutsche as if they had occurred on January 1, 2015. The pro forma information includes the historical financial results of the Company and the acquired businesses. The pro forma results are not necessarily indicative of the operating results that would have occurred had the acquisitions been effective January 1, 2015, nor are they

intended to be indicative of results that may occur in the future. The pro forma information does not include the effects of any synergies related to the acquisitions.

	Quarter Ended September 30,		Nine Months Ended September 30,	
	(Actual)	(Unaudited Pro Forma)	(Actual)	(Unaudited Pro Forma)
In thousands	2017	2016	2017	2016
Net sales	$180,041	169,126	$520,407	$499,875
Net income	$10,675	14,206	$35,469	$37,532
Earnings per share:				
Basic	$0.63	$ 0.84	$2.08	$2.23
Diluted	$0.62	$ 0.83	$2.05	$2.20

Included in earnings during the quarter ended September 30, 2017 was $1.0 million of amortization expense and $0.1 million of fair value step-up adjustments to inventory related to Texel and Gutsche.

Pro forma earnings during the quarter ended September 30, 2016 were adjusted to exclude non-recurring items such as fair value step-up adjustments to inventory of $1.6 million and acquisition related expenses of $0.8 million. Pro forma earnings during the quarter ended September 30, 2016 were adjusted to include $0.8 million of additional amortization expense of the acquired intangible assets recognized at fair value in purchase accounting and additional depreciation expense of $0.2 million resulting from increased basis of property, plant and equipment.

Included in earnings during the nine months ended September 30, 2017 was $3.0 million of amortization expense, $1.1 million of fair value step-up adjustments to inventory and acquisition related expenses of $0.1 million related to Texel and Gutsche.

Pro forma earnings during the nine months ended September 30, 2016 were adjusted to exclude non-recurring items such as acquisition related expenses of $3.2 million and fair value step-up adjustments to inventory of $1.6 million. Pro forma earnings during the nine months ended September 30, 2016 were adjusted to include $3.1 million of additional amortization expense of the acquired intangible assets recognized at fair value in purchase accounting, additional depreciation expense of $1.1 million resulting from increased basis of property, plant and equipment, as well as $0.5 million of interest expense associated with borrowings under the Company's Amended Credit Facility. Customer freight billings of $0.9 million were reclassed from costs of sales to net sales for the nine months ended September 30, 2016.

3. Inventories

Inventories as of September 30, 2017 and December 31, 2016 were as follows:

In thousands	September 30, 2017	December 31, 2016
Raw materials	$ 32,194	$ 24,518
Work in process	26,191	17,161
Finished goods	23,984	25,360
	82,369	67,039
Less: Progress billings	(1,684)	(893)
Total inventories	$ 80,685	$ 66,146

Included in work in process is gross tooling inventory of $17.0 million and $10.3 million at September 30, 2017 and December 31, 2016, respectively. Tooling inventory, net of progress billings, was $15.4 million and $9.4 million at September 30, 2017 and December 31, 2016, respectively.

4. Goodwill and Other Intangible Assets

Goodwill:

The Company tests its goodwill for impairment annually in the fourth quarter, and whenever events or changes in circumstances indicate that the carrying value may exceed its fair value.

The changes in the carrying amount of goodwill by segment as of and for the quarter ended September 30, 2017 were as follows:

In thousands	December 31, 2016	Currency translation adjustments	Additions	September 30, 2017
Performance Materials	$ 12,777	$ 462	$ —	$ 13,239
Technical Nonwovens	50,829	4,386	323	55,538
Total goodwill	$ 63,606	$ 4,848	$ 323	$ 68,777

Goodwill Associated with Acquisitions and Divestitures

The goodwill addition of $0.3 million within the Technical Nonwovens segment is the result of the final post-closing adjustments related to the acquisition of Gutsche on December 31, 2016.

Other Intangible Assets:

The table below presents the gross carrying amount and, as applicable, the accumulated amortization of the Company's acquired intangible assets other than goodwill included in "Other intangible assets, net" in the Condensed Consolidated Balance Sheets as of September 30, 2017 and December 31, 2016:

	September 30, 2017		December 31, 2016	
In thousands	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortized intangible assets				
Customer Relationships	$39,383	$ (3,689)	$36,131	$ (1,284)
Patents	4,443	(3,738)	4,028	(3,300)
Technology	2,500	(602)	2,500	(477)
Trade Names	4,275	(1,199)	3,912	(394)
License Agreements	632	(632)	583	(583)
Other	577	(412)	536	(205)
Total amortized intangible assets	$51,810	$ (10,272)	$47,690	$ (6,243)

5. Long-term Debt and Financing Arrangements

On July 7, 2016, the Company amended its $100 million senior secured revolving credit facility ("Amended Credit Facility") which increased the available borrowing from $100 million to $175 million, added a fourth lender and extended the maturity date to July 7, 2021. The Amended Credit Facility is secured by substantially all of the assets of the Company. Under the terms of the Amended Credit Facility, the lenders are providing a $175 million revolving credit facility to the Company, under which the lenders may make revolving loans and issue letters of credit to or for the benefit of the Company and its subsidiaries. The Company may request the Amended Credit Facility be increased by an aggregate amount not to exceed $50 million through an accordion feature, subject to specified conditions set forth in the Amended Credit Facility.

The Amended Credit Facility contains a number of affirmative and negative covenants, including financial and operational covenants. The Company is required to meet a minimum interest coverage ratio. The interest coverage ratio requires that, at the end of each fiscal quarter, the ratio of consolidated EBIT to Consolidated Interest Charges, both as defined in the Amended Credit Facility, may not be less than 2.0 to 1.0 for the immediately preceding 12

month period. In addition, the Company must maintain a Consolidated Leverage Ratio, as defined in the Amended Credit Facility, as of the end of each fiscal quarter of no greater than 3.0 to 1.0. The Company must also meet minimum consolidated EBITDA as of the end of each fiscal quarter for the preceding 12 month period of $30 million. The Company was in compliance with all covenants at September 30, 2017 and December 31, 2016.

Interest is charged on borrowings at the Company's option of either: (i) Base Rate plus the Applicable Rate, or (ii) the Eurodollar Rate plus the Applicable Rate. The Base Rate is a fluctuating rate equal to the highest of (a) the federal funds rate plus 0.50%, (b) the prime rate as set by Bank of America, and (c) the Eurocurrency Rate plus 1.00%. The Eurocurrency Rate means (i) if denominated in LIBOR quoted currency, a fluctuating LIBOR per annum rate equal to the London Interbank Offered Rate; (ii) if denominated in Canadian Dollars, the rate per annum equal to the Canadian Dealer Offered Rate; or (iii) the rate per annum as designated with respect to such alternative currency at the time such alternative currency is approved by the Lenders. The Applicable Rate is

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determined based on the Company’s Consolidated Leverage Ratio (as defined in the Amended Credit Agreement). The Applicable Rate added to the Base Rate Committed Loans ranges from 15 basis points to 100 basis points, and the Applicable Rate added to Eurocurrency Rate Committed Loans and Letters of Credit ranges from 75 basis points to 175 basis points. The Company pays a quarterly fee ranging from 17.5 basis points to 30 basis points on the unused portion of the $175 million available under the Amended Credit Facility.

In April 2017, the Company entered into a three-year interest rate swap agreement transacted with a bank which converts the interest on the first notional $60.0 million of the Company's one-month LIBOR-based borrowings under its Amended Credit Facility from a variable rate, plus the borrowing spread, to a fixed rate of 1.58% plus the borrowing spread. The notional amount reduces quarterly by $5.0 million through March 31, 2020. The Company is accounting for the interest rate swap agreement as a cash flow hedge. Effectiveness of this derivative agreement is assessed quarterly by ensuring that the critical terms of the swap continue to match the critical terms of the hedged debt.

At September 30, 2017, the Company had borrowing availability of $78.4 million under the Amended Credit Facility, net of $92.6 million of borrowings outstanding and standby letters of credit outstanding of $4.0 million.

In addition to the amounts outstanding under the Amended Credit Facility, the Company has various acquired foreign credit facilities totaling approximately $11.6 million. At September 30, 2017, the Company's foreign subsidiaries had $0.1 million in borrowings outstanding as well as $3.0 million in standby letters of credit outstanding.

Total outstanding debt consists of:

In thousands	Effective Rate	Maturity	September 30, 2017	December 31, 2016
Revolver Loan, due July 7, 2021	2.24 %	2021	$ 92,600	$ 126,600
Other Foreign Bank Borrowings	0.80% - 3.40%	2017 - 2024	—	1,430
Capital Leases	1.65% - 2.09%	2019 - 2020	650	745
			93,250	128,775
Less portion due within one year			(257)	(634)
Total long-term debt			$ 92,993	$ 128,141

The carrying value of the Company’s $175 million Amended Credit Facility approximates fair value given the variable rate nature of the debt. The fair values of the Company’s long-term debt are determined using discounted cash flows based upon the Company’s estimated current interest cost for similar type borrowings or current market value, which falls under Level 2 of the fair value hierarchy. The carrying values of the long-term debt approximate fair market value.

The weighted average interest rate on long-term debt was 2.1% for the nine months ended September 30, 2017 and 1.4% for the year ended December 31, 2016.

6. Derivatives

The Company selectively uses financial instruments to manage market risk associated with exposure to fluctuations in interest rates. These financial exposures are monitored and managed by the Company as an integral part of its risk management program. The Company’s interest rate exposure is most sensitive to fluctuations in interest rates in the United States and Europe, which impact interest paid on its debt. The Company has debt with variable rates of interest based generally on LIBOR. From time to time, the Company may enter into interest rate swap agreements to manage

interest rate risk. These instruments are designated as cash flow hedges and are recorded at fair value using Level 2 observable market inputs.

Derivative instruments are recognized as either assets or liabilities on the balance sheet in either current or non-current other assets or other accrued liabilities or other long-term liabilities depending upon maturity and commitment. For derivative instruments that are designated and qualify as a cash flow hedge, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income and reclassified into earnings in the same period or periods in which the hedge transaction affects earnings. Any ineffective portion, or amounts related to contracts that are not designated as hedges, are recorded directly to earnings. The Company's policy for classifying cash flows from derivatives is to report the cash flows consistent with the underlying hedged item. The Company does not use derivatives for speculative or trading purposes or to manage commodity exposures.

In April 2017, the Company entered into a three-year interest rate swap agreement transacted with a bank which converts the interest on the first notional $60.0 million of the Company's one-month LIBOR-based borrowings under its Amended Credit

Facility from a variable rate, plus the borrowing spread, to a fixed rate of 1.58% plus the borrowing spread. The notional amount reduces quarterly by $5.0 million through March 31, 2020. The interest rate swap agreement was accounted for as cash flow hedge. Effectiveness of this derivative agreement is assessed quarterly by ensuring that the critical terms of the swap continue to match the critical terms of the hedged debt.

The following table sets forth the fair value amounts of derivative instruments held by the Company:

In thousands	September 30, 2017		December 31, 2016	
	Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Derivatives designated as hedging instruments:				
Interest rate contract	$ —	$ (11)	$ —	$ —
Total derivatives	$ —	$ (11)	$ —	$ —

The following table sets forth the income (loss), recorded in accumulated other comprehensive income (loss), net of tax, for the quarters and nine months ended September 30, 2017 and 2016 for derivatives held by the Company and designated as hedging instruments:

	Quarter Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Cash flow hedges:				
Interest rate contract	$ 37	$ —	$ (7)	$ —
	$ 37	—	$ (7)	$ —

7. Equity Compensation Plans

As of September 30, 2017, the Company’s equity compensation plans consisted of the 2003 Stock Incentive Compensation Plan (the “2003 Plan”) and the 2012 Stock Incentive Plan (the “2012 Plan” and together with the 2003 Plan, the “Plans”) under which incentive and non-qualified stock options and time and performance based restricted shares have been granted to employees and directors from authorized but unissued shares of common stock or treasury shares. The 2003 Plan is not active, but continues to govern all outstanding awards granted under the plan until the awards themselves are exercised or terminate in accordance with their terms. The 2012 Plan, approved by shareholders on April 27, 2012, authorizes 1.75 million shares of common stock for awards. The 2012 Plan also authorizes an additional 1.2 million shares of common stock to the extent awards granted under prior stock plans that were outstanding as of April 27, 2012 are forfeited. The 2012 Plan provides for the following types of awards: options, restricted stock, restricted stock units and other stock-based awards.

The Company accounts for the expense of all share-based compensation by measuring the awards at fair value on the date of grant. The Company recognizes expense on a straight-line basis over the vesting period of the entire award. Options issued by the Company under its stock option plans have a term of ten years and generally vest ratably over a period of three to four years. Time-based restricted stock grants are expensed over the vesting period of the award, which is typically two to four years. The number of performance based restricted shares that vest or forfeit depend upon achievement of certain targets during the performance period. Prior to January 1, 2016, stock compensation expense included estimated effects of forfeitures. Upon adoption of ASU 2016-09, Improvements to Employee Share-Based Payment Accounting, in the first quarter of 2016, an accounting policy election was made to account for forfeitures as they occur. Compensation expense for performance based awards is recorded based upon the service period and management’s assessment of the probability of achieving the performance goals and will be adjusted based upon actual achievement.

The Company incurred equity compensation expense of $1.0 million for each of the quarters ended September 30, 2017 and September 30, 2016, and $3.2 million and $3.1 million for the nine months ended September 30, 2017 and September 30, 2016, respectively, for the Plans, including restricted stock awards. No equity compensation costs were capitalized as part of inventory.

Stock Options

The following table is a summary of outstanding and exercisable options as of September 30, 2017:

In thousands except per share amounts and years	Shares	Weighted-Average Exercise Price	Aggregate Intrinsic Value
Outstanding at September 30, 2017	393	$ 26.51	$ 12,350
Exercisable at September 30, 2017	214	$ 16.51	$ 8,700
Unvested at September 30, 2017	179	$ 38.41	$ 3,650

There were no stock options granted and 6,170 stock options exercised during the quarter ended September 30, 2017 and no stock options granted and 34,634 stock options exercised during the nine months ended September 30, 2017. The amount of cash received from the exercise of stock options was $0.1 million during the quarter ended September 30, 2017 and $0.4 million during the nine months ended September 30, 2017. The intrinsic value of stock options exercised was $0.2 million with a tax benefit of $0.1 million during the quarter ended September 30, 2017 and the intrinsic value of stock options exercised was $1.4 million with a tax benefit of $0.4 million during the nine months ended September 30, 2017.

There were no stock options granted and 18,863 stock options exercised during the quarter ended September 30, 2016 and 18,300 stock options granted and 46,502 stock options exercised during the nine months ended September 30, 2016. The amount of cash received from the exercise of stock options was $0.2 million during the quarter ended September 30, 2016 and $0.6 million during the nine months ended September 30, 2016. The intrinsic value of stock options exercised was $0.7 million with a tax benefit of $0.2 million during the quarter ended September 30, 2016 and the intrinsic value of stock options exercised was $1.3 million with a tax benefit of $0.3 million during the nine months ended September 30, 2016.

At September 30, 2017, the total unrecognized compensation cost related to non-vested stock option awards was approximately $1.8 million, with a weighted average expected amortization period of 2.6 years.

Restricted Stock

Restricted stock includes both performance-based and time-based awards. There were no time-based restricted stock shares granted during the quarter and nine month period ended September 30, 2017. There were no performance-based restricted shares granted during the quarter ended September 30, 2017 and 18,100 performance-based restricted shares granted for the nine months ended September 30, 2017. There were no performance-based restricted shares that vested during the quarter ended September 30, 2017 and 108,600 performance-based restricted shares that vested during the nine months ended September 30, 2017 in accordance with plan provisions. There were 6,000 time-based restricted shares that vested during the quarter ended September 30, 2017 and 15,288 time-based restricted shares that vested during the nine months ended September 30, 2017.

There were 8,570 time-based restricted shares granted during the quarter ended September 30, 2016 and 16,500 time-based restricted shares granted during the nine months ended June 30, 2016. There were no performance-based restricted shares granted during the quarter ended September 30, 2016 and 7,380 performance-based shares granted in the nine months ended September 30, 2016, which have a 2018 earnings per share target. There were no performance-based restricted shares that vested during the quarter ended September 30, 2016 and there were 65,087 performance-based restricted shares that vested during the nine months ended September 30, 2016 in accordance with Plan provisions. There were 6,000 time-based restricted shares that vested during the quarter ended September 30, 2016 and there were 14,129 time-based restricted shares that vested during the nine months ended September 30,

2016.

At September 30, 2017, there were 187,620 unvested restricted stock awards with total unrecognized compensation cost related to these awards of $3.7 million with a weighted average expected amortization period of 1.8 years. Compensation expense for performance based awards is recorded based on the service period and management's assessment of the probability of achieving the performance goals.

8. Stock Repurchases

During the nine months ended September 30, 2017, the Company purchased 44,352 shares of common stock valued at $2.6 million, through withholding, pursuant to provisions in agreements with recipients of restricted stock granted under the Company's equity compensation plans, in which the Company withholds that number of shares having fair value equal to each recipient's minimum tax withholding due.

9. Restructuring

In April 2017, the Company commenced a restructuring plan in the Technical Nonwovens segment which will include plant consolidations and transfer of equipment to other facilities within the segment's Europe and China operations. The consolidation of certain plants, which is expected to conclude in the second quarter of 2019, is expected to reduce operating costs, increase efficiency and enhance the Company's flexibility by better aligning its manufacturing footprint with the segment's customer base. Accordingly, the Company expects to record pre-tax expenses of approximately $5.0 million, in connection with this restructuring plan, of which approximately $4.8 million is expected to result in cash expenditures over the period of consolidation. The Company also expects to incur cash expenditures of approximately $3.5 million for capital expenditures associated with this plan.

During the quarter ended September 30, 2017, the Company recorded pre-tax restructuring expenses of $0.2 million as part of this restructuring plan in cost of sales for the quarter. During the nine months ended September 30, 2017, the Company recorded pre-tax restructuring expenses of $0.4 million as part of this restructuring plan. Restructuring expenses of $0.2 million were recorded in both cost of sales and selling, product development and administrative expenses for the nine months ended September 30, 2017. The Company expects to record approximately $0.7 million of restructuring expenses in the fourth quarter of 2017.

Actual pre-tax expenses incurred and total estimated pre-tax expenses for the restructuring program by type are as follows:

In thousands	Severance and Related Expenses	Contract Termination Expenses	Facility Exit, Move and Set-up Expenses	Total
Expense incurred during quarter ended:				
June 30, 2017	$ 74	$ 185	$ 34	$293
September 30, 2017	87	(49)	116	154
Total pre-tax expense incurred	$ 161	$ 136	$ 150	$447
Estimated remaining expense at September 30, 2017	1,000	150	3,400	4,550
Total estimated pre-tax expense	$ 1,161	$ 286	$ 3,550	$4,997

There were cash outflows of $0.1 million for the restructuring program for the quarter and nine months ended September 30, 2017.

Accrued restructuring costs were as follows at September 30, 2017:

In thousands	Total
Balance as of March 31, 2017	$—
Pre-tax restructuring expenses	293
Cash paid	—
Balance as of June 30, 2017	$293
Pre-tax restructuring expenses	71
Cash paid	(54)
Balance as of September 30, 2017	$310

10. Employer Sponsored Benefit Plans

As of September 30, 2017, the Company maintains a defined benefit pension plan that covers certain domestic Lydall employees ("domestic pension plan") that is closed to new employees and benefits are no longer accruing. The domestic

pension plan is noncontributory and benefits are based on either years of service or eligible compensation paid while a participant is in the plan. The Company's funding policy is to fund not less than the ERISA minimum funding standard and not more than the maximum amount that can be deducted for federal income tax purposes.

Contributions of $1.2 million and $3.6 million were made during the quarter and nine months ended September 30, 2017, respectively. The Company does not expect to make any further contributions in the fourth quarter of 2017. Contributions of $3.6 million were made during the quarter and nine months ended September 30, 2016.

The following is a summary of the components of net periodic benefit cost, which is recorded primarily within selling, product development and administrative expenses, for the domestic pension plan for the quarters and nine months ended September 30, 2017 and 2016:

	Quarter Ended September 30,		Nine Months Ended September 30,	
In thousands	2017	2016	2017	2016
Components of net periodic benefit cost				
Interest cost	$514	$535	$1,543	$1,605
Expected return on assets	(594)	(605)	(1,782)	(1,815)
Amortization of actuarial loss	273	233	819	700
Net periodic benefit cost	$193	$163	$580	$490

11. Income Taxes

The Company’s effective tax rate was 24.2% and 29.7% for the quarters ended September 30, 2017 and 2016, and 24.0% and 31.5% for the nine months ended September 30, 2017 and 2016, respectively. The difference in the Company’s effective tax rate for the quarter ended September 30, 2017 compared to the quarter ended September 30, 2016 was primarily related to a net tax benefit of $1.4 million from the completion of a tax audit in the third quarter of 2017, partially offset by $0.4 million of tax expense related to a repatriation of foreign cash back into the United States. The difference in the Company's effective tax rate for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016 was primarily related to tax benefits from stock compensation of $1.7 million for the nine months ended September 30, 2017 compared to $0.4 million for the nine months ended September 30, 2016, the net tax benefit of $1.4 million in the third quarter of 2017 related to the completion of a tax audit and a more favorable mix of income in lower taxed jurisdictions during the nine months ended September 30, 2017.
The Company and its subsidiaries file a consolidated federal income tax return, as well as returns required by various state and foreign jurisdictions. In the normal course of business, the Company is subject to examination by taxing authorities, including such major jurisdictions as the United States, France, Germany, China, the United Kingdom, the Netherlands and Canada. With few exceptions, the Company is no longer subject to U.S. federal examinations for years before 2015, state and local examinations for years before 2012, and non-U.S. income tax examinations for years before 2003.
The Company’s effective tax rates in future periods could be affected by earnings being higher or lower in countries where tax rates differ from the United States federal tax rate, the relative impact of permanent tax adjustments on higher or lower earnings from domestic operations, changes in net deferred tax asset valuation allowances, stock vesting, the completion of acquisitions or divestitures, changes in tax rates or tax laws and the completion of tax projects and audits.

12. Earnings Per Share

For the quarters and nine months ended September 30, 2017 and 2016, basic earnings per share were computed by dividing net income by the weighted average number of shares of common stock outstanding during the period. Unexercised stock options and unvested restricted shares are excluded from this calculation but are included in the diluted earnings per share calculation using the treasury stock method as long as their effect is not antidilutive.

The following table provides a reconciliation of weighted-average shares used to determine basic and diluted earnings per share:

	Quarter Ended	Nine Months Ended

In thousands	September 30, 2017	2016	September 30, 2017	2016
Basic average common shares outstanding	17,055	16,888	17,028	16,859
Effect of dilutive options and restricted stock awards	212	250	242	225
Diluted average common shares outstanding	17,267	17,138	17,270	17,084

For each of the quarters ended September 30, 2017 and 2016, stock options for 38,280 shares and 91,900 shares of Common Stock were not considered in computing diluted earnings per common share because they were antidilutive.

For the nine months ended September 30, 2017 and 2016, stock options for 38,280 shares and 96,455 shares of common stock, respectively, were not considered in computing diluted earnings per share because they were antidilutive.

13. Segment Information

As of September 30, 2017, the Company’s reportable segments are Performance Materials, Technical Nonwovens, Thermal/Acoustical Metals, and Thermal/Acoustical Fibers.

On December 31, 2016, the Company completed an acquisition of the nonwoven needle punch materials businesses, which include MGF Gutsche & Co GmbH KG, FRG and Gutsche Environmental Technology (Yixing) Co. Ltd., China, operating under Gutsche (“Gutsche”), a German based corporation. The Gutsche operations manufacture nonwoven needle punch materials and predominantly serve the industrial filtration and high performance nonwoven markets. The acquired businesses are included in the Company's Technical Nonwovens reporting segment.

On July 7, 2016, the Company completed an acquisition of the nonwoven and coating materials businesses primarily operating under the Texel brand (“Texel”) from ADS, Inc. (“ADS”), a Canadian based corporation. The Texel operations manufacture nonwoven needle punch materials and predominantly serve the geosynthetic, liquid filtration, and other industrial markets. The acquired businesses are included in the Company's Technical Nonwovens reporting segment.

During the third quarter of 2017, the Company announced its plan to combine the Thermal/Acoustical Metals and Thermal/Acoustical Fibers operating segments into a single operating segment named Thermal Acoustical Solutions. Combining these automotive segments into one segment is expected to allow the Company to better serve its customers, leverage operating disciplines and drive efficiencies across the global automotive operations. Through the balance of the year these two segments will continue to operate independently as the Company defines the future global structure and strategies of the combined businesses and expects to commence the reporting of the two businesses as a single consolidated operating segment effective January 1, 2018.

Performance Materials Segment

The Performance Materials segment includes filtration media solutions primarily for air, fluid power, and industrial applications (“Filtration”), thermal insulation solutions for building products, appliances, and energy and industrial markets (“Thermal Insulation”) and air and liquid life science applications (“Life Sciences Filtration”). Filtration products include LydAir® MG (Micro-Glass) Air Filtration Media, LydAir® MB (Melt Blown) Air Filtration Media, LydAir® SC (Synthetic Composite) Air Filtration Media, and Arioso™ Membrane Composite Media. These products constitute the critical media component of clean-air systems for applications in clean-space, commercial, industrial and residential HVAC, power generation, and industrial processes. Lydall has leveraged its extensive technical expertise and applications knowledge into a suite of media products covering the vast liquid filtration landscape across the engine and industrial fields. The LyPore® Liquid Filtration Media series address a variety of application needs in fluid power including hydraulic filters, air-water and air-oil coalescing, industrial fluid processes and diesel fuel filtration.

Thermal Insulation products are high performance nonwoven veils, papers, mats and specialty composites for the building products, appliance, and energy and industrial markets. The Manniglas® Thermal Insulation brand is diverse in its product application ranging from high temperature seals and gaskets in ovens and ranges to specialty veils for HVAC and cavity wall insulation. The appLY® Mat Needled Glass Mats have been developed to expand Lydall’s high temperature technology portfolio for broad application into the appliance market and supplements the Lytherm® Insulation Media product brand, traditionally utilized in the industrial market for kilns and furnaces used in metal processing. Lydall’s Cryotherm® Super-Insulating Media, CRS-Wrap® Super-Insulating Media and Cryo-Lite™ Cryogenic Insulation products are industry standards for state-of-the-art cryogenic insulation designs used by manufacturers of cryogenic equipment for liquid gas storage, piping, and transportation.

Life Sciences is comprised of products which have been designed to meet the stringent requirements of critical applications including biopharmaceutical pre-filtration and clarification, lateral flow diagnostic and analytical testing, respiratory protection, potable water filtration and high purity process filtration such as that found in food and beverage and medical applications. Lydall also offers ultra-high molecular weight polyethylene membranes under the Solupor® trade name. These specialty microporous membranes are utilized in various markets and applications including air and liquid filtration and transdermal drug delivery. Solupor® membranes incorporate a unique combination of high mechanical strength, chemical inertness, gamma stability and very high porosity making them ideal for many applications.

Technical Nonwovens Segment

The Technical Nonwovens segment primarily produces needle punch nonwoven solutions for myriad industries and applications. Products are manufactured and sold globally under the leading brands of Lydall Industrial Filtration, Southern Felt, Gutsche, and Texel. Industrial Filtration products include nonwoven rolled-good felt media and filter bags used primarily in industrial air and liquid filtration applications. Nonwoven filter media is the most effective solution to satisfy increasing emission control regulations in a wide range of industries, including power, cement, steel, asphalt, incineration, mining, food, and pharmaceutical. Advanced Materials products include nonwoven rolled-good media used in commercial applications and predominantly serves the

geosynthetics, automotive, industrial,medical, and safety apparel markets. Automotive media is provided to Tier I/II suppliers and as well as the Company's Thermal/Acoustical Fibers segment.

Technical Nonwovens segment products include air and liquid filtration media sold under the brand names Fiberlox® high performance filtration felts, Checkstatic™ conductive filtration felts, Microfelt® high efficiency filtration felts, Pleatlox® pleatable filtration felts, Ultratech™ PTFE filtration felts, Powertech® and Powerlox® power generation filtration felts, Microcap® high efficiency liquid filtration felts, Duotech membrane composite filtration felts, along with our porotex® family of high temperature filtration felts including microvel® and optivel® products. Technical Nonwovens Advanced Materials products are sold under the brand names Thermofit® thermo-formable products, Ecoduo® recycled content materials, Duotex® floor protection products, and Versaflex® composite molding materials. Technical Nonwovens also offers extensive finishing and coating capabilities which provide custom engineered properties tailored to meet the most demanding applications. The business leverages a wide range of fiber types and extensive technical capabilities to provide products that meet our customers' needs across a variety of applications providing both high performance and durability.

Thermal/Acoustical Metals Segment

The Thermal/Acoustical Metals segment offers a full range of innovative engineered products tailored for the transportation sector to thermally shield sensitive components from high heat, improve exhaust gas treatment and lower harmful emissions as well as assist in the reduction of powertrain and road noise. Lydall products are found in the underbody (tunnel, fuel tank, rear muffler, spare tire) and underhood (outer dash, powertrain, catalytic converter, turbo charger, manifolds) of cars, trucks, SUVs, heavy duty trucks and recreational vehicles.

Thermal/Acoustical Metals segment products are formed on production lines capable of efficiently combining multiple layers of metal and thermal - acoustical insulation media to provide an engineered thermal and acoustical shielding solution for an array of application areas in the global automotive and truck markets. The flux® product family in Thermal/Acoustical Metals includes several patented or IP-rich products that address applications which include: Direct Exhaust Mount heat shields, which are assembled to high temperature components like catalytic converters, turbochargers or exhaust manifolds using aluminized and stainless steel and high performance and high temperature heat insulating materials; Powertrain heat shields that absorb noise at the source and do not contribute to the engine's noise budget; and durable, thermally robust solutions for temperature sensitive plastic components such as fuel tanks that are in proximity to high temperature heat sources.

Thermal/Acoustical Fibers Segment

The Thermal/Acoustical Fibers segment offers innovative engineered products to assist primarily in noise vibration and harshness (NVH) abatement within the transportation sector. Lydall products are found in the interior (dash insulators, cabin flooring), underbody (wheel well, aerodynamic belly pan, fuel tank, exhaust) and under hood (engine compartment) of cars, trucks, SUVs, heavy duty trucks and recreational vehicles.

Thermal/Acoustical Fibers segment products offer thermal and acoustical insulating solutions comprised of organic and inorganic fiber composites for the automotive and truck markets primarily in North America. Lydall's dBCore® is a lightweight acoustical composite that emphasizes absorption principles over heavy-mass type systems. Lydall's dBLyte® is a high-performance acoustical barrier with sound absorption and blocking properties and can be used throughout a vehicle's interior to minimize intrusive noise from an engine compartment and road. Lydall's ZeroClearance® is an innovative thermal solution that utilizes an adhesive backing for attachment and is used to protect vehicle components from excessive heat. Lydall's specially engineered products provide a solution that provides weight reduction, superior noise suppression, and increased durability over conventional designs.

Thermal/Acoustical Metals segment and Thermal/Acoustical Fibers segment operating results include allocations of certain costs shared between the segments.

The tables below present net sales and operating income by segment for the quarters and nine months ended September 30, 2017 and 2016, and also a reconciliation of total segment net sales and operating income to total consolidated net sales and operating income.

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Consolidated net sales by segment:

In thousands	Quarter Ended September 30, 2017	Quarter Ended September 30, 2016	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016
Performance Materials Segment:				
Filtration	$19,946	$18,045	$58,047	$53,861
Thermal Insulation	7,283	7,081	22,116	20,570
Life Sciences Filtration	2,318	3,705	7,436	10,749
Performance Materials Segment net sales	29,547	28,831	87,599	85,180
Technical Nonwovens Segment (1):				
Industrial Filtration	38,346	25,414	108,884	67,805
Advanced Materials (2)	34,960	26,870	90,438	43,526
Technical Nonwovens net sales	73,306	52,284	199,322	111,331
Thermal/Acoustical Metals Segment:				
Metal parts	41,522	39,807	124,043	117,578
Tooling	8,297	4,830	13,441	14,301
Thermal/Acoustical Metals Segment net sales	49,819	44,637	137,484	131,879
Thermal/Acoustical Fibers Segment:				
Fiber parts	34,739	35,073	116,430	107,629
Tooling	884	1,356	4,064	4,829
Thermal/Acoustical Fibers Segment net sales	35,623	36,429	120,494	112,458
Eliminations and Other (2)	(8,254)	(6,456)	(24,492)	(18,188)
Consolidated Net Sales	$180,041	$155,725	$520,407	$422,660

Operating income by segment:

In thousands	Quarter Ended September 30, 2017	Quarter Ended September 30, 2016	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016
Performance Materials	$3,063	$3,283	$8,516	$10,102
Technical Nonwovens (1)	8,589	5,662	19,792	12,807
Thermal/Acoustical Metals	1,836	5,451	7,453	13,090
Thermal/Acoustical Fibers	8,716	10,026	33,162	30,980
Corporate Office Expenses	(7,043)	(6,125)	(18,963)	(19,481)
Consolidated Operating Income	$15,161	$18,297	$49,960	$47,498

(1) The Technical Nonwovens segment reports results of Texel and Gutsche for the period following the dates of acquisition of July 7, 2016 and December 31, 2016, respectively.

(2) Included in the Technical Nonwovens segment and Eliminations and Other is $6.5 million and $4.5 million in intercompany sales to the T/A Fibers segment for the quarters ended September 30, 2017 and 2016, respectively, and $19.5 million and $13.6 million for the nine months ended September 30, 2017 and 2016, respectively.

14. Commitments and Contingencies

The Company is subject to legal proceedings, claims, investigations and inquiries that arise in the ordinary course of business such as, but not limited to, actions with respect to commercial, intellectual property, employment, personal injury, and environmental matters. The Company believes that it has meritorious defenses against the claims currently asserted against it and intends to defend them vigorously. While the outcome of litigation is inherently uncertain and the Company cannot be sure that it will prevail in any of the cases, subject to the matter referenced below, the Company is not aware of any matters pending that are expected to have a material adverse effect on the Company's business, financial position, results of operations or cash flows.

Lydall Gerhardi GmbH Co. & KG (“Lydall Gerhardi”), an indirect wholly-owned subsidiary of the Company and part of Lydall’s Thermal/Acoustical Metals reporting segment, has cooperated with the German Federal Cartel Office, Bundeskartellamt (“German Cartel Office”) since May 2014 in connection with an investigation related to violations of German anti-trust laws by and among certain European automotive heat shield manufacturers, including Lydall Gerhardi.

In December 2016, Lydall Gerhardi agreed in principle with the German Cartel Office to pay a settlement amount of €3.3 million. The Company recorded the expense of €3.3 million (approximately $3.5 million U.S. Dollars) in December 2016. In July 2017, Lydall Gerhardi entered into a formal settlement agreement with the German Cartel Office, and remitted payment in full in August 2017 of €3.3 million (approximately $3.9 million U.S. Dollars), definitively concluding this matter.

Environmental Remediation

The Company has elected to remediate environmental contamination discovered prior to the closing of the Texel acquisition at a certain property in the province of Quebec, Canada (“the Property”) that was acquired by Lydall. The Company records accruals for environmental costs when such losses are probable and reasonably estimable. In 2016, the Company, through the engagement of a third-party environmental service firm, determined the final scope and timing of the remediation project and estimated the cost of the remediation project to range between $0.9 million and $1.5 million. Based upon this range of estimated remediation costs, the Company recorded an environmental liability of $0.9 million within other long-term liabilities on the Company's balance sheet at December 31, 2016. In July, 2017, the third-party environmental service firm completed its initial investigatory work and, based on information provided from the results of such work, the Company increased its environmental liability by $0.6 million at June 30, 2017. During the nine months ended September 30, 2017, the environmental liability was reduced by $0.2 million, reflecting payments made to vendors, resulting in a balance of $1.3 million at September 30, 2017. The remaining balance for the environmental liability of $1.3 million (which remains fully offset as described below) is included within other long-term liabilities on the Company's balance sheet at September 30, 2017.

Pursuant to the Share Purchase Agreement, ADS has agreed to indemnify the Company from all costs and liabilities associated with the contamination and remediation work, including the costs of preparation and approval of the remediation plan and other reports in relation therewith. This indemnity was secured by an environmental escrow account, which was established in the amount of $3.0 million Canadian Dollars (approximately $2.4 million U.S. Dollars as of September 30, 2017). Should the costs and liabilities exceed the environmental escrow amount, the Company also has access to the general indemnity escrow account, which was originally established in the amount of $14.0 million Canadian Dollars (approximately $11.2 million U.S. Dollars as of September 30, 2017), and based on the Share Purchase Agreement was reduced to approximately $7.0 million Canadian Dollars (approximately $5.6 million U.S. Dollars as of September 30, 2017). Based on the foregoing, an indemnification asset of $0.9 million was also recorded in other assets at December 31, 2016 as the Company believed, and still believes collection from ADS is probable. This indemnification asset was increased by $0.6 million to reflect the most current estimate of $1.5 million at June 30, 2017. The indemnification asset was decreased by $0.2 million reflecting indemnification from ADS for payments made by the Company to its vendors during the nine months ended September 30, 2017. The resulting indemnification asset balance is $1.3 million at September 30, 2017. The accrual for remediation costs will be adjusted as further information develops, estimates change and payments to vendors are made for remediation, with an off-setting adjustment to the indemnification asset from ADS if collection is deemed probable.

In the fourth quarter of 2016, as part of a groundwater discharging permitting process, water samples collected from wells and process water basins at the Company’s Rochester New Hampshire manufacturing facility, within the Performance Materials segment, showed concentrations of Perfluorinated Compounds (“PFCs”) in excess of state

ambient groundwater quality standards.

In January 2017, the Company received a notification from the State of New Hampshire Department of Environmental Services (“NHDES”) naming Lydall Performance Materials, Inc. a responsible party with respect to the discharge of regulated contaminants and, as such, is required to take action to investigate and remediate the impacts in accordance with standards established by the NHDES. The Company is conducting a site investigation, the scope of which has been reviewed by the NHDES, in order to assess the extent of potential soil and groundwater contamination and develop a remedial action. Based on input received from NHDES in March 2017 with regard to the scope of the site investigation, the Company recorded $0.2 million of expense in the first quarter of 2017 associated with the expected costs of conducting this site investigation. Based on additional information obtained through the results of its site investigation and correspondence with NHDES in September 2017, no additional expense was recorded in the third quarter of 2017. In the fourth quarter of 2017, the Company expects to submit its final site investigation report to the NHDES. The Company does not know the scope or extent of its future obligations, if any, that may arise from the NHDES review of the site investigation report and therefore is unable to estimate the cost of any required future corrective actions. During the nine months ended September 30, 2017, the environmental liability of $0.2 million has been reduced by $0.1 million reflecting payments made to vendors, resulting in a balance of $0.1 million at September 30, 2017. While the site investigation is nearly complete, the Company cannot assure that costs will not exceed the current estimates nor that any future corrective action at this location would not have a material effect on the Company’s financial condition, results of operations or liquidity. Provisions for such matters are charged to expense when it is probable that a liability has been incurred and reasonable estimates of the liability

can be made. Estimates of environmental liabilities are based on a variety of matters, including, but not limited to, the stage of investigation, the stage of the remedial design, evaluation of existing remediation technologies, and presently enacted laws and regulations. In future periods, a number of factors could significantly impact any estimates of environmental remediation costs.

15. Changes in Accumulated Other Comprehensive Income (Loss)

The following table discloses the changes by classification within accumulated other comprehensive income (loss) for the periods ended September 30, 2017 and 2016:

In thousands	Foreign Currency Translation Adjustment	Defined Benefit Pension Adjustment	Gains and Losses on Cash Flow Hedges	Total Accumulated Other Comprehensive (Loss) Income
Balance at December 31, 2015	$ (16,920)	$ (17,665)	$—	$ (34,585)
Other Comprehensive loss	(2,324)	—	—	(2,324)
Amounts reclassified from accumulated other comprehensive loss	—	427 (a)	—	427
Balance at September 30, 2016	(19,244)	(17,238)	—	(36,482)
Balance at December 31, 2016	(27,885)	(20,065)	—	(47,950)
Other Comprehensive Income/(loss)	23,951	—	(7) (b)	23,944
Amounts reclassified from accumulated other comprehensive loss	—	516 (a)	—	516
Balance at September 30, 2017	$ (3,934)	$ (19,549)	$ (7)	$ (23,490)

(a) Amount represents amortization of actuarial losses, a component of net periodic benefit cost. This amount was $0.5 million, net of $0.3 million tax benefit for the nine months ended September 30, 2017 and 2016.

(b) Amount represents unrealized losses on the fair value of hedging activities, net of taxes, for the nine months ended September 30, 2017.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW AND OUTLOOK

Business

Lydall, Inc. and its subsidiaries (collectively, the "Company" or "Lydall") design and manufacture specialty engineered nonwoven filtration media, industrial thermal insulating solutions, and thermal and acoustical barriers for filtration/separation and heat abatement and sound dampening applications. Lydall principally conducts its business through four reportable segments: Performance Materials, Technical Nonwovens, Thermal/Acoustical Metals and Thermal/Acoustical Fibers, with sales globally. The Performance Materials segment includes filtration media solutions for air, fluid power, and industrial applications ("Filtration"), air and liquid life science applications ("Life Sciences Filtration"), and thermal insulation solutions for building products, appliances, and energy and industrial markets ("Thermal Insulation"). The Technical Nonwovens ("TNW") consists of Industrial Filtration products that include nonwoven rolled-goods felt media and filter bags used primarily in industrial air and liquid filtration applications as well as Advanced Materials products that include nonwoven rolled-good media that is used in other commercial applications and predominantly serves the geosynthetics, automotive, industrial and medical markets. Advanced Materials products also include automotive rolled-good material for use in the Thermal/Acoustical Fibers segment manufacturing process. Nonwoven filter media is used to satisfy increasing emission control regulations in a wide range of industries, including power, cement, steel, asphalt, incineration, food, and pharmaceutical. The Thermal/Acoustical Metals ("T/A Metals") segment and Thermal/Acoustical Fibers ("T/A Fibers") segment offer innovative engineered products to assist in noise and heat abatement within the transportation sector.

During the third quarter of 2017, the Company announced its plan to combine the Thermal/Acoustical Metals and Thermal/Acoustical Fibers operating segments into a single operating segment named Thermal Acoustical Solutions. Combining these automotive segments into one segment is expected to allow the Company to better serve its customers, leverage operating disciplines and drive efficiencies across the global automotive operations. Through the balance of the year these two segments will continue to operate independently as the Company defines the future global structure and strategies of the combined businesses and expects to commence the reporting of the two businesses as a single consolidated operating segment effective January 1, 2018.

Third Quarter 2017 Highlights

Below are financial highlights comparing Lydall's quarter ended September 30, 2017 ("Q3 2017") results to its quarter ended September 30, 2016 ("Q3 2016") results:

- Net sales were $180.0 million in Q3 2017, compared to $155.7 million in Q3 2016, an increase of $24.3 million, or 15.6%. The change in consolidated net sales is summarized in the following table:

Components	Change in Net Sales	Percent Change
Acquisitions	$13,917	8.9 %
Parts volume and pricing change	4,354	2.8 %
Change in tooling sales	3,397	2.2 %
Foreign currency translation	2,648	1.7 %
Total	$24,316	15.6 %

- The increase in net sales was primarily from the TNW segment which reported increased net sales of $21.0 million, including $13.9 million from the Gutsche acquisition that occurred on December 31, 2016. The remaining increase in TNW's net sales was from volume increases in industrial filtration and advanced materials products, including increased intercompany sales to the Thermal/Acoustical Fibers ("T/A Fibers) segment of $2.0 million. In the Thermal/Acoustical Metals ("T/A Metals") segment, sales growth was $5.2 million, or 3.3% of consolidated net sales, including increased tooling net sales of $3.3 million in advance of new platform launches. A marginal increase in Performance Materials ("PM") segment net sales was essentially offset by lower net sales from the T/A Fibers segment during the third quarter of 2017.

- Gross margin was 22.2%, compared to 24.5% in the second quarter of 2016, with the reduction principally driven by the T/A Metals segment, and to a lesser extent the T/A Fibers segment. The T/A Metals segment negatively impacted

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consolidated gross margin by approximately 190 basis points, due to increased raw material commodity costs, reduced customer pricing, and unfavorable mix, and to a lesser extent, operational inefficiencies. The T/A Fibers segment negatively impacted consolidated gross margin by approximately 50 basis points primarily due to reduced customer pricing, including from part design changes, in the third quarter of 2017 compared to the third quarter of 2016.

- Operating income was $15.2 million, or 8.4%, of net sales in Q3 2017, compared to $18.3 million, or 11.7% of net sales, in Q3 2016. Operating margin declined compared to Q3 2016 due to the negative impact of lower gross margin of 230 basis points coupled with increased selling, product development and administrative expenses as a percentage of net sales of 100 basis points. The following components are included in operating income for Q3 2017 and Q3 2016 and impact the comparability of each quarter:

Components	Q3 2017	Q3 2016	Increase (Decrease)
Amortization of intangible assets	$1,129	$616	$ 513
Automotive segments consolidation expenses	1,197	—	1,197
Strategic initiatives expenses	326	537	(211)
TNW restructuring expenses	154	—	154
Inventory step-up purchase accounting adjustments	83	1,607	(1,524)

- Effective tax rate for Q3 2017 was 24.2% compared to 29.7% in Q3 2016. The effective tax rate in Q3 2017 was positively impacted by a net tax benefit of $1.4 million from the completion of an income tax audit that concluded in the third quarter of 2017.

- Net income was $10.7 million, or $0.62 per diluted share, in Q3 2017 and $12.8 million, or $0.75 per diluted share, in Q3 2016.

Liquidity

Cash flows from operations in the first nine months of 2017 were $46.2 million compared with $47.4 million in the first nine months of 2016, as improved cash from net income was offset by increases in working capital, including tooling inventory in advance of new platform launches and timing of tax payments. Cash was $64.7 million at September 30, 2017, net of $34.0 million paid down on the Company’s domestic credit facility during 2017, leaving availability of $78.4 million on the facility at September 30, 2017.

Outlook

Looking forward to the remainder of 2017, the Company expects demand to be generally stable in Lydall's markets across all segments, and expects organic growth consistent with the third quarter of 2017. From a gross margin perspective, the Company expects to be in a range consistent with the third quarter of 2017 and the final quarter of 2016. The Company remains focused on executing the Technical Nonwovens' integration plan that is expected to reduce operating costs and increase efficiency, and the Thermal Acoustical Solutions consolidation, an initiative that is expected to deliver approximately $2.0 million run-rate cost savings. Last, from a liquidity standpoint, the Company has ample capacity to support organic growth programs, fund capital investments and pursue attractive acquisitions that will drive profitable growth.

Results of Operations

All of the following tabular comparisons, unless otherwise indicated, are for the quarters ended September 30, 2017 (Q3-17) and September 30, 2016 (Q3-16) and the nine months ended September 30, 2017 (YTD-17) and September 30, 2016 (YTD-16).

Net Sales

	Quarter Ended			Nine Months Ended		
In thousands	Q3-17	Q3-16	Percent Change	YTD-17	YTD-16	Percent Change
Net sales	$180,041	$155,725	15.6 %	$520,407	$422,660	23.1 %

Net sales for the third quarter of 2017 increased by $24.3 million, or 15.6%, compared to the third quarter of 2016. This increase was primarily related to greater net sales in the Technical Nonwovens segment of $21.0 million, or 13.5% of consolidated net sales, including $13.9 million of net sales from the Gutsche acquisition, which occurred on December 31, 2016. There were no Gutsche sales included in the Technical Nonwovens segment in the third quarter of 2016. The T/A Metals segment reported sales growth of $5.2 million, or 3.3% of consolidated net sales, in the third quarter of 2017 compared to the third quarter of 2016 and the Performance Materials segment reported growth in net sales of $0.7 million, or 0.5% of consolidated net sales. The T/A Fibers segment reported a decrease in net sales of $0.8 million, or 0.5% of consolidated net sales, in the third quarter of 2017 compared to the third quarter of 2016. Foreign currency translation had a favorable impact on net sales of $2.6 million, or 1.7% of consolidated net sales, in the third quarter of 2017 compared to the third quarter of 2016.

Net sales for the nine months ended September 30, 2017 increased by $97.7 million, or 23.1%, compared to the nine months ended September 30, 2016. This increase was primarily related to greater net sales in the Technical Nonwovens segment of $88.0 million, or 20.8% of consolidated net sales, including $73.1 million from the Texel and Gutsche acquisitions, which occurred on July 7, 2016 and December 31, 2016, respectively. There were no Gutsche sales included in the Technical Nonwovens segment in the first nine months of 2016 and no Texel sales in the first six months of 2016. The T/A Fibers segment reported growth in net sales of $8.0 million, or 1.9 of consolidated net sales%, and the T/A Metals segment reported growth in net sales of $5.6 million, or 1.3% of consolidated net sales, in the first nine months of 2017 compared to the first nine months of 2016. The Performance Materials segment reported growth in net sales of $2.4 million, or 0.6% of consolidated net sales. Foreign currency translation had an unfavorable impact on net sales of $1.9 million, or 0.4% of consolidated net sales, in the first nine months of 2017 compared to the first nine months of 2016.

Cost of Sales

	Quarter Ended			Nine Months Ended		
In thousands of dollars	Q3-17	Q3-16	Percent Change	YTD-17	YTD-16	Percent Change
Cost of sales	$140,061	$117,532	19.2 %	$396,750	$316,100	25.5 %

Cost of sales for the third quarter of 2017 increased by $22.5 million, or 19.2%, compared to the third quarter of 2016. The increase was primarily due to increased sales of $21.0 million in the Technical Nonwovens segment, primarily related to the Gutsche acquisition, as well as increases in sales volumes in the T/A Metals and Performance Materials segments aggregating to $5.9 million. Also contributing to the increase in cost of sales for the third quarter of 2017 compared to the third quarter of 2016 was unfavorable mix causing increased costs in the T/A Metals, Technical Nonwovens and Performance Materials segments. The unfavorable mix in the T/A Metals segment was primarily related to increased tooling costs in the third quarter of 2017 and the absence of low cost prototype part sales

recognized in the third quarter of 2016. Cost of sales also increased in the third quarter of 2017 compared to the third quarter of 2016 due to raw material commodity increases primarily in the T/A Metals segment. These increases to cost of sales were partially offset by the absence of $1.5 million in purchase accounting adjustments to cost of sales related to inventory step-up and lower material costs in the Technical Nonwovens segment in the third quarter of 2017 compared to the third quarter of 2016. Foreign currency translation increased cost of sales in the third quarter of 2017 compared to the third quarter of 2016 by $2.3 million, or 1.9%.

Cost of sales for the nine months ended September 30, 2017 increased by $80.7 million, or 25.5%, compared to the nine months ended September 30, 2016. The increase was primarily due to increased sales in the Technical Nonwovens segment of $88.0 million, primarily related to the Texel and Gutsche acquisitions, as well as increases in sales in all other segments aggregating to $16.1 million. Also contributing to the increase in cost of sales for the first nine months of 2017 compared to the first nine months of 2016 were higher overhead costs, primarily in the T/A Metals, Performance Materials segments and Technical Nonwovens

segments. Foreign currency translation lowered cost of sales in the first nine months of 2017 compared to the first nine months of 2016 by $1.6 million, or 0.5%.

Gross Profit

	Quarter Ended			Nine Months Ended		
In thousands	Q3-17	Q3-16	Percent Change	YTD-17	YTD-16	Percent Change
Gross profit	$39,980	$38,193	4.7 %	$123,657	$106,560	16.0 %
Gross margin	22.2 %	24.5 %		23.8 %	25.2 %	

Gross margin for the third quarter of 2017 was 22.2% compared to 24.5% in the third quarter of 2016. The T/A Metals segment negatively impacted consolidated gross margin by approximately 190 basis points, primarily related to increased raw material commodity costs, reduced customer pricing and unfavorable mix from increased tooling at low margins in the third quarter of 2017 and reduced prototype part sales at higher margins recognized in the third quarter of 2016. Additionally, the T/A Fibers segment negatively impacted consolidated gross margin by approximately 50 basis points, primarily as a result of lower customer pricing, including from part design changes, and higher raw material costs in the third quarter of 2017 compared to the third quarter of 2016. Consolidated gross margin was favorably impacted by approximately 30 basis points due to improved gross margin from the Technical Nonwovens segment, primarily due to the negative impact of a $1.6 million, or 110 basis point, purchase accounting adjustment relating to inventory step-up in the third quarter of 2016 from the acquisition of Texel, as well as lower raw material costs in the third quarter of 2017 compared to the third quarter of 2016. The Performance Materials segment had a minimal effect on consolidated gross margin in the third quarter of 2017 compared to the third quarter of 2016 with lower material costs offset by unfavorable mix.

Gross margin for the nine months ended September 30, 2017 was 23.8% compared to 25.2% in the nine months ended September 30, 2016. The T/A Metals segment negatively impacted consolidated gross margin by approximately 100 basis points, primarily related to increased raw material commodity costs, increased overhead expenses including operational inefficiencies, unfavorable product mix and reduced customer pricing in the first nine months of 2017 compared to the first nine months of 2016. The Technical Nonwovens segment negatively impacted consolidated gross margin by approximately 50 basis points, primarily related to unfavorable mix and purchase accounting adjustments relating to inventory step up and restructuring expenses. Additionally, the Performance Materials segment negatively impacted consolidated gross margin by approximately 10 basis points primarily related to higher margin termination buys in the first nine months of 2016 and unfavorable absorption of fixed costs in the first nine months of 2017. The T/A Fibers segment favorably impacted consolidated gross margin by approximately 10 basis points, primarily as a result of improved mix of products and decreased lower margin tooling volume in the first nine months of 2017 compared to the first nine months of 2016.

Selling, Product Development and Administrative Expenses

	Quarter Ended			Nine Months Ended		
In thousands	Q3-17	Q3-16	Percent Change	YTD-17	YTD-16	Percent Change
Selling, product development and administrative expenses	$24,819	$19,896	24.7 %	$73,697	$59,062	24.8 %
Percentage of sales	13.8 %	12.8 %		14.2 %	14.0 %	

Selling, product development and administrative expenses for the third quarter of 2017 increased by $4.9 million, or 100 basis points as a percentage of sales, compared to the third quarter of 2016. This increase was primarily related to the Technical Nonwovens segment due to the the acquisition of Gutsche on December 31, 2016, resulting in $1.9

million of increased expenses. There were no Gutsche expenses included in the Technical Nonwovens segment in the third quarter of 2016. All other selling, product development and administrative expenses increased $3.0 million, or 15.2%, in the third quarter of 2017 compared to the third quarter of 2016. This increase was primarily due to $1.1 million of expenses associated with the planned combination of the T/A Metals and T/A Fibers segments, and increased corporate consulting expenses in support of organic growth initiatives of $0.9 million, information technology expenses of $0.4 million, product trial runs of $0.3 million and other administrative expenses of $0.3 million in the third quarter of 2017 compared to the third quarter of 2016.

Selling, product development and administrative expenses for the nine months ended September 30, 2017 increased by $14.6 million, or 20 basis points as a percentage of sales, compared to the nine months ended September 30, 2016. This increase was primarily related to the Technical Nonwovens segment due to the acquisitions of Texel on July 7, 2016 and Gutsche on December 31, 2016 resulting in $10.9 million of selling, product development and administrative expenses, which included $2.5 million of incremental intangible amortization expense from TNW segment acquisitions. There were no Gutsche selling, product development

and administrative expenses included in the TNW segment in the first nine months of 2016 and no Texel selling, product development and administrative expenses included in the TNW segment in the first six months of 2016. All other selling, product development and administrative expenses increased $3.8 million, or 6.4%, in the first nine months of 2017 compared to the first nine months of 2016. This increase was primarily due to greater salaries and benefits of $2.3 million, $1.1 million of expenses associated with the planned combination of the T/A Metals and T/A Fibers segments, greater information technology expenses of $1.1 million, higher corporate consulting expenses in support of organic growth initiatives of $1.0 million and a non-cash long-lived asset impairment charge of $0.8 million in the first nine months of 2017 compared to the first nine months of 2016. These increases were partially offset by lower strategic initiatives expenses of $2.1 million and lower bad debt expense of $0.4 million in the first nine months of 2017 compared to the first nine months of 2016.

Interest Expense

	Quarter Ended			Nine Months Ended		
In thousands	Q3-17	Q3-16	Percent Change	YTD-17	YTD-16	Percent Change
Interest expense	$705	$389	81.2 %	$2,106	$643	227.5%
Weighted average interest rate	2.4 %	1.2 %		2.1 %	1.3 %	

The increase in interest expense for the quarter and nine months ended September 30, 2017 compared to the quarter and nine months ended September 30, 2016 was due to higher average borrowings outstanding used to finance both the Texel and Gutsche acquisitions on July 7, 2016 and December 31, 2016, respectively, and increased interest rates.

Other Income/Expense, net

	Quarter Ended			Nine Months Ended		
In thousands	Q3-17	Q3-16	Dollar Change	YTD-17	YTD-16	Dollar Change
Other expense (income), net	$408	$(218)	$ 626	$1,147	$(884)	$2,031

The decrease in other income, net, for the quarter and nine months ended September 30, 2017 compared to the quarter and nine months ended September 30, 2016 was primarily related to net foreign currency losses recognized with the revaluation of cash, trade payables and receivables and intercompany loans denominated in currencies other than the functional currencies of the Company's subsidiaries.

Income Taxes

The Company’s effective tax rate was 24.2% and 29.7% for the quarters ended September 30, 2017 and 2016, and 24.0% and 31.5% for the nine months ended September 30, 2017 and 2016, respectively. The difference in the Company’s effective tax rate for the quarter ended September 30, 2017 compared to the quarter ended September 30, 2016 was primarily related to a net tax benefit of $1.4 million from the completion of a tax audit in the third quarter of 2017, partially offset by $0.4 million of tax expense related to a repatriation of foreign cash back into the United States. The difference in the Company's effective tax rate for the nine months ended September 30, 2017 compared to the nine months ended September 30, 2016 was primarily related to tax benefits from stock compensation of $1.7 million for the nine months ended September 30, 2017 compared to $0.4 million for the nine months ended September 30, 2016, the net tax benefit of $1.4 million in the third quarter of 2017 related to the completion of a tax audit and a more favorable mix of income in lower taxed jurisdictions during the nine months ended September 30, 2017.
The Company and its subsidiaries file a consolidated federal income tax return, as well as returns required by various state and foreign jurisdictions. In the normal course of business, the Company is subject to examination by taxing authorities, including such major jurisdictions as the United States, France, Germany, China, the United Kingdom, the

Netherlands and Canada. With few exceptions, the Company is no longer subject to U.S. federal examinations for years before 2015, state and local examinations for years before 2012, and non-U.S. income tax examinations for years before 2003.

The Company's effective tax rates in future periods could be affected by earnings being higher or lower in countries where tax rates differ from the United States federal tax rate, the relative impact of permanent tax adjustments on higher or lower earnings from domestic operations, changes in net deferred tax asset valuation allowances, stock vesting, the completion of acquisitions or divestitures, changes in tax rates or tax laws and the completion of tax projects and audits.

Segment Results

The following tables present net sales information for the key product and service groups included within each operating segment as well as other products and services and operating income by segment, for the quarter and nine months ended September 30, 2017 compared with the quarter and nine months ended September 30, 2016:

Net sales by segment:

	Quarter Ended		
In thousands	Q3-17	Q3-16	Dollar Change
Performance Materials Segment:			
Filtration	$19,946	$18,045	$1,901
Thermal Insulation	7,283	7,081	202
Life Sciences Filtration	2,318	3,705	(1,387)
Performance Materials Segment net sales	29,547	28,831	716
Technical Nonwovens Segment (1):			
Industrial Filtration	38,346	25,414	12,932
Advanced Materials (2)	34,960	26,870	8,090
Technical Nonwovens net sales	73,306	52,284	21,022
Thermal/Acoustical Metals Segment:			
Metal parts	41,522	39,807	1,715
Tooling	8,297	4,830	3,467
Thermal/Acoustical Metals Segment net sales	49,819	44,637	5,182
Thermal/Acoustical Fibers Segment:			
Fiber parts	34,739	35,073	(334)
Tooling	884	1,356	(472)
Thermal/Acoustical Fibers Segment net sales	35,623	36,429	(806)
Eliminations and Other (2)	(8,254)	(6,456)	(1,798)
Consolidated Net Sales	$180,041	$155,725	$24,316

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In thousands	Nine Months Ended YTD-17	YTD-16	Dollar Change
Performance Materials Segment:			
Filtration	$58,047	$53,861	$4,186
Thermal Insulation	22,116	20,570	1,546
Life Sciences Filtration	7,436	10,749	(3,313)
Performance Materials Segment net sales	87,599	85,180	2,419
Technical Nonwovens Segment (1):			
Industrial Filtration	108,884	67,805	41,079
Advanced Materials (2)	90,438	43,526	46,912
Technical Nonwovens net sales	199,322	111,331	87,991
Thermal/Acoustical Metals Segment:			
Metal parts	124,043	117,578	6,465
Tooling	13,441	14,301	(860)
Thermal/Acoustical Metals Segment net sales	137,484	131,879	5,605
Thermal/Acoustical Fibers Segment:			
Fiber parts	116,430	107,629	8,801
Tooling	4,064	4,829	(765)
Thermal/Acoustical Fibers Segment net sales	120,494	112,458	8,036
Eliminations and Other (2)	(24,492)	(18,188)	(6,304)
Consolidated Net Sales	$520,407	$422,660	$97,747

Operating income by segment:

In thousands	Quarter Ended Q3-17 Operating Income	Operating Margin %	Q3-16 Operating Income	Operating Margin %	Dollar Change
Performance Materials	$3,063	10.4%	$3,283	11.4%	$(220)
Technical Nonwovens (1)	8,589	11.7%	5,662	10.8%	2,927
Thermal/Acoustical Metals	1,836	3.7%	5,451	12.2%	(3,615)
Thermal/Acoustical Fibers	8,716	24.5%	10,026	27.5%	(1,310)
Corporate Office Expenses	(7,043)		(6,125)		(918)
Consolidated Operating Income	$15,161	8.4%	$18,297	11.7%	$(3,136)

In thousands	Nine Months Ended YTD-17 Operating Income	Operating Margin %	YTD-16 Operating Income	Operating Margin %	Dollar Change
Performance Materials	$8,516	9.7%	$10,102	11.9%	$(1,586)
Technical Nonwovens (1)	19,792	9.9%	12,807	11.5%	6,985
Thermal/Acoustical Metals	7,453	5.4%	13,090	9.9%	(5,637)
Thermal/Acoustical Fibers	33,162	27.5%	30,980	27.5%	2,182
Corporate Office Expenses	(18,963)		(19,481)		518
Consolidated Operating Income	$49,960	9.6%	$47,498	11.2%	$2,462

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(1) The Technical Nonwovens segment reports results of Texel and Gutsche for the period following the dates of acquisition of July 7, 2016 and December 31, 2016, respectively.

(2) Included in the Technical Nonwovens segment and Eliminations and Other is $6.5 million and $4.5 million in intercompany sales to the T/A Fibers segment for the quarters ended September 30, 2017 and 2016, respectively and $19.5 million and $13.6 million for the nine months ended September 30, 2017 and 2016, respectively.

Performance Materials

Segment net sales increased $0.7 million, or 2.5%, in the third quarter of 2017 compared to the third quarter of 2016. The increase was primarily due to higher net sales of filtration products of $1.9 million, or 10.5%, primarily due to improved demand and share gains particularly in North America and Europe. This increase was partially offset by decreased life sciences product net sales of $1.4 million in the third quarter of 2017 primarily as a result of lower liquid filtration product net sales of $0.8 million, primarily due to product termination buys of $0.6 million in the third quarter of 2016. Foreign currency translation had a favorable impact on net sales of $0.5 million, or 1.7%, in the third quarter of 2017 compared to the third quarter of 2016.

The Performance Materials segment reported operating income of $3.1 million, or 10.4% of net sales, in the third quarter of 2017, compared to operating income of $3.3 million, or 11.4% of net sales, in the third quarter of 2016. The decrease in operating income was primarily attributable to increased selling, product development and administrative expenses of $0.3 million, or 70 basis points as a percentage of segment net sales in the third quarter of 2017 compared to the third quarter of 2016. These increases were primarily related to increased product trial expenses of $0.3 million. Also contributing to the decrease in operating income was lower gross margin of 30 basis points due to an unfavorable mix of product sales, including higher margin product termination buys in the third quarter of 2016. Foreign currency translation had a minimal impact on operating income in the third quarter of 2017 compared with the third quarter of 2016.

Segment net sales increased $2.4 million, or 2.8%, in the first nine months of 2017 compared to the first nine months of 2016. The increase was primarily due to higher net sales of filtration products of approximately $4.2 million, or 7.8%, particularly in North America and Europe due to increased demand and share gains. Additionally, thermal insulation product net sales increased $1.5 million, or 7.5%, in the first nine months of 2017 compared to the first nine months of 2016, primary due to increased order activity in cryo liquid natural gas and energy related applications, and to a lesser extent, improved market demand in the insulation space. These increases were partially offset by lower sales of life sciences products of $3.3 million, or 30.8%, in the first nine months of 2017 compared to the first nine months of 2016, primarily the result of lower liquid filtration product net sales of $3.0 million, as there was product termination buys of $2.2 million in the first nine months of 2016. Foreign currency translation had a minimal impact on net sales in the first nine months of 2017 compared to the first nine months of 2016.

The Performance Materials segment reported operating income of $8.5 million, or 9.7% of net sales, in the first nine months of 2017, compared to operating income of $10.1 million, or 11.9% of net sales, in the first nine months of 2016. The decrease in operating income was primarily due to increased selling, product development and administrative expenses of $1.5 million, or 130 basis points as a percentage of net sales, including $0.8 million from a non-cash long-lived asset impairment charge recorded in the first quarter of 2017. Other increases included higher product trial expenses of $0.3 million, environmental expenses of $0.2 million and other selling, product development and administrative expenses of $0.2 million in the first nine months of 2017 compared to the first nine months of 2016. Also, gross profit decreased $0.1 million, primarily the result of reduction in gross margin of 80 basis points primarily due to unfavorable mix on higher margin product termination buys in the first nine months of 2016 and unfavorable absorption of fixed costs in the first nine months of 2017. Foreign currency translation had a minimal

impact on operating income in the first nine months of 2017 compared to the first nine months of 2016.

Technical Nonwovens

Segment net sales increased $21.0 million, or 40.2%, in the third quarter of 2017 compared to the third quarter of 2016 primarily due to increased net sales of $13.9 million from the Gutsche acquisition which occurred on December 31, 2016. The remaining increase in segment net sales of $7.1 million, or 13.6%, was from increased advanced materials products sales of $4.1 million, primarily due to increased sales of automotive rolled-good material for use in the T/A Fibers segment manufacturing process and increased geosynthetic product sales. Also, industrial filtration products sales increased $3.0 million due to improved global demand in power generation markets in the third quarter of 2017 compared to the third quarter of 2016. Foreign currency translation favorably impacted net sales by $1.0 million, or 1.9%, in the third quarter of 2017 compared to the third quarter of 2016.

The Technical Nonwovens segment reported operating income of $8.6 million, or 11.7% of net sales, in the third quarter of 2017, compared to $5.7 million, or 10.8% of net sales, in the third quarter of 2016. The increase in segment operating income of $2.9 million was principally from the acquisitions of Texel and Gutsche, which contributed a combined increase of $2.8 million of operating income. The third quarter of 2016 included the negative impact of a $1.6 million purchase accounting adjustment to

cost of sales related to inventory step-up. The increase in operating margin of 90 basis points was primarily attributable to improved gross margin of 170 basis points due to the negative impact of the $1.6 million, or 310 basis point, purchase accounting adjustment related to inventory step-up in the third quarter of 2016, partially offset by unfavorable product mix in the third quarter of 2017 compared to the third quarter of 2016. These increases to operating income was partially offset by higher segment selling, product development and administrative expenses of $2.4 million primarily related to the acquisitions of Texel and Gutsche, which contributed a combined increase of $2.3 million of selling, product development and administrative expenses. Segment selling, product development and administrative expenses negatively impacted operating margin by approximately 80 basis points, which included $0.5 million, or 70 basis points, of incremental intangibles amortization. Foreign currency translation had a minimal impact on operating income in the third quarter of 2017 compared to the third quarter of 2016.

Segment net sales increased $88.0 million in the first nine months of 2017 compared to the first nine months of 2016 primarily due to net sales of $73.1 million from the acquisitions of Texel and Gutsche which occurred on July 7, 2016 and December 31, 2016, respectively. The remaining increase in segment net sales of $14.9 million, or 13.4%, was from advanced materials products which increased $7.8 million, due to increased sales of automotive rolled-good material for use in the T/A Fibers segment manufacturing process, and industrial filtration products increased $7.1 million, primarily due to improved demand in domestic power generation markets. Foreign currency translation had a negative impact on segment net sales of $1.4 million, or 1.2%, in the first nine months of 2017 compared to the first nine months of 2016.

The Technical Nonwovens segment reported operating income of $19.8 million, or 9.9% of net sales, in the first nine months of 2017, compared to $12.8 million, or 11.5% of net sales, in the first nine months of 2016. The increase in segment operating income of $7.0 million was principally from the acquisitions of Texel and Gutsche, which contributed a combined increase of $5.6 million of operating income. The remaining increase in segment operating income of $1.4 million was due to increased sales from the segment's North America and China operations. The decrease in operating margin of 160 basis points was primarily attributable to increased selling, product development and administrative expenses of $11.2 million, or an increase of 160 basis points as a percentage of net sales, primarily due to increased Texel and Gutsche expenses of $11.2 million. Included in selling, product development and administrative expenses was incremental intangible amortization expense of $2.5 million from the acquired Texel and Gutsche businesses in the first nine months of 2017 compared to the first nine months of 2016. Gross margin was flat compared to prior year and had minimal impact on operating margin as lower raw material costs and decreased expenses for purchase accounting adjustments to cost of sales related to inventory step-up were offset by unfavorable product mix. Foreign currency translation had a minimal impact on operating income in the first nine months of 2017 compared to the first nine months of 2016.

Thermal/Acoustical Metals

Segment net sales increased $5.2 million, or 11.6%, in the third quarter of 2017, compared to the third quarter of 2016. Tooling net sales increased $3.5 million, or 71.8%, compared to the third quarter of 2016, due to the timing of new product launches. Automotive parts net sales increased $1.7 million, or 4.3%, compared to the third quarter of 2016 primarily due to increased demand and new platform launches from customers served by the Company's European and Chinese automotive operations, partially offset by lower demand on certain platforms in the Company's North American automotive operations. Foreign currency translation had a favorable impact of $1.1 million, or 2.5%, on segment net sales in the third quarter of 2017 compared to the third quarter of 2016.

The T/A Metals segment reported operating income of $1.8 million, or 3.7% of net sales, in the third quarter of 2017, compared to operating income of $5.5 million, or 12.2% of net sales, in the third quarter of 2016. The decrease in operating income of $3.6 million and operating margin of 850 basis points was primarily due to lower gross margin of

700 basis points due to increased raw material commodity costs, reduced customer pricing and unfavorable mix from increased lower margin tooling sales in the third quarter of 2017 and the absence of higher margin prototype part sales recognized in the third quarter of 2016. Also, to a lesser extent, operational inefficiencies contributed to lower gross margin in the third quarter of 2017 compared to the third quarter of 2016. The remaining 150 basis point reduction in operating margin was due to increased selling, product development and administrative expenses of $1.2 million, or 1.6% as a percentage of net sales, due to consolidation expenses of $0.8 million, or 160 basis points, primarily related to the planned combination of the T/A Metals and T/A Fibers segments, and higher salaries of $0.4 million in the third quarter of 2017 compared to the third quarter of 2016. Foreign currency translation had minimal impact on operating income in the third quarter of 2017 compared to the third quarter of 2016.

Segment net sales increased $5.6 million, or 4.3%, in the first nine months of 2017, compared to the first nine months of 2016. Automotive parts net sales increased $6.5 million, or 5.5%, primarily due to increased demand from customers served by the Company’s Chinese, European and to a lesser extent North American automotive operations. Foreign currency translation had a negative impact on parts net sales of $0.4 million, or 0.4%, in the first nine months of 2017 compared to the first nine months of 2016. Tooling net sales decreased $0.9 million, or 6.0%, compared to the first nine months of 2016 due to the timing of new product launches. Foreign currency translation had a minimal impact on tooling net sales in the first nine months of 2017 compared to the first nine months of 2016.

The T/A Metals segment reported operating income of $7.5 million, or 5.4% of net sales, in the first nine months of 2017, compared to operating income of $13.1 million, or 9.9% of net sales, in the first nine months of 2016. The decrease in operating margin of 450 basis points was primarily due to lower gross margin of 350 basis points due to increased raw material commodity costs, increased overhead expenses including operational inefficiencies, unfavorable product mix and reduced customer pricing in the first nine months of 2017 compared to the first nine months of 2016. The remaining 100 basis point reduction in operating margin was due to increased segment selling, product development and administrative expenses of $1.9 million in the first nine months of 2017 compared to the first nine months of 2016 related to consolidation expenses of $0.8 million, or 60 basis points, associated with the planned combination of the T/A Metals and T/A Fibers segments, increased salaries of $0.8 million and increased other administrative costs of $0.3 million. Overall, the first nine months of 2017 operating income and operating margin were negatively impacted by consolidation expenses of $0.9 million, or 70 basis points, and severance expenses of $0.7 million, or 50 basis points. Foreign currency translation had a minimal impact on operating income in the first nine months of 2017 compared to the first nine months of 2016.

Thermal/Acoustical Fibers

Segment net sales decreased $0.8 million, or 2.2%, in the third quarter of 2017 compared to the third quarter of 2016 due to decreased tooling net sales of $0.5 million due to timing of new product launches. Increased parts volume was offset by lower customer pricing, including approximately 1.5% of adjustments from part design changes, resulting in a decrease of parts net sales of $0.3 million, or 1.0%, in the third quarter of 2017 compared to the third quarter of 2016.

The T/A Fibers segment reported operating income of $8.7 million, or 24.5% of net sales, in the third quarter of 2017, compared to operating income of $10.0 million, or 27.5% of net sales, in the third quarter of 2016. The decrease in operating income as a percentage of segment net sales of 300 basis points was primarily due lower gross margin of 250 basis points in the third quarter of 2017 compared to the third quarter of 2016. The lower gross margin were primarily due to lower customer pricing, and to a lesser extent, increased raw material costs. Segment selling, product development and administrative expenses increased $0.2 million, or 60 basis points as a percentage of net sales, in the third quarter of 2017 compared to the third quarter of 2016 primarily due to expenses associated with the planned combination of the T/A Metals and T/A Fibers segments.

Segment net sales increased $8.0 million, or 7.1%, in the first nine months of 2017 compared to the first nine months of 2016. Automotive parts net sales increased $8.8 million, or 8.2%, due to higher consumer demand for vehicles in North America on Lydall's existing platforms. This increase was partially offset by a decrease in tooling net sales of $0.8 million in the first nine months of 2017 compared to the first nine months of 2016 due to timing of new product launches.

The T/A Fibers segment reported operating income of $33.2 million, or 27.5% of net sales, in the first nine months of 2017 compared to operating income of $31.0 million, or 27.5% of net sales, in the first nine months of 2016. The increase in operating income was attributable to increased parts net sales, partially offset by decreased gross margin of 30 basis points as a result of lower customer pricing partially offset by favorable mix of product sales. Segment selling, product development and administrative expenses increased $0.2 million compared to the prior year quarter primarily due to expenses associated with the planned combination of the T/A Metals and T/A Fibers segments.

Corporate Office Expenses

Corporate office expenses in the third quarter of 2017 were $7.0 million, compared to $6.1 million in the third quarter of 2016. The increase of $0.9 million was primarily due to increased consulting expenses in support of organic growth initiatives in the third quarter of 2017 compared to the third quarter of 2016.

Corporate office expenses for the first nine months of 2017 were $19.0 million, compared to $19.5 million in the first nine months of 2016. The decrease of $0.5 million was primarily due to decreased corporate strategic initiatives expense of $2.1 million, partially offset by increased consulting expenses in support of organic growth initiatives of $1.0 million, increased salaries and benefits of $0.4 million and increased other administrative expenses of $0.2 million in the first nine months of 2017 compared to the first nine months of 2016.

Liquidity and Capital Resources

The Company assesses its liquidity in terms of its ability to generate cash to fund operating, investing and financing activities. The principal source of liquidity is operating cash flows. In addition to operating cash flows, other significant factors that affect the overall management of liquidity include capital expenditures, investments in businesses, strategic transactions, income tax payments, debt service payments, outcomes of contingencies, foreign currency exchange rates and pension funding. The Company manages worldwide cash requirements by considering available funds among domestic and foreign subsidiaries. The Company expects to finance its 2017 operating cash and capital spending requirements from existing cash balances, cash provided by operating activities and through borrowings under the Amended Credit Facility, as needed.

At September 30, 2017, the Company held $64.7 million in cash and cash equivalents, including $11.7 million in the U.S. with the remaining held by foreign subsidiaries.

Financing Arrangements

On July 7, 2016, the Company amended its $100 million senior secured revolving credit facility (“Amended Credit Facility”) which increased the available borrowing from $100 million to $175 million, added a fourth lender and changed the maturity date from January 31, 2019 to July 7, 2021. The Amended Credit Facility is secured by substantially all of the assets of the Company. The Company entered into this Amended Credit Facility in part to fund a majority of the 2016 acquisitions and provide additional capacity to support organic growth programs, fund capital investments and continue pursuits of attractive acquisitions.

Under the terms of the Amended Credit Facility, the lenders are providing a $175 million revolving credit facility to the Company, under which the lenders may make revolving loans and issue letters of credit to or for the benefit of the Company and its subsidiaries. The Company may request the Amended Credit Facility be increased by an aggregate amount not to exceed $50 million through an accordion feature, subject to specified conditions.

The Amended Credit Facility contains a number of affirmative and negative covenants, including financial and operational covenants. The Company is required to meet a minimum interest coverage ratio. The interest coverage ratio requires that, at the end of each fiscal quarter, the ratio of consolidated EBIT to Consolidated Interest Charges, both as defined in the Amended Credit Facility, may not be less than 2.0 to 1.0 for the immediately preceding 12 month period. In addition, the Company must maintain a Consolidated Leverage Ratio, as defined in the Amended Credit Facility, as of the end of each fiscal quarter of no greater than 3.0 to 1.0. The Company must also meet minimum consolidated EBITDA as of the end of each fiscal quarter for the preceding 12 month period of $30 million.

Interest is charged on borrowings at the Company’s option of either: (i) Base Rate plus the Applicable Rate, or (ii) the Eurodollar Rate plus the Applicable Rate. The Base Rate is a fluctuating rate equal to the highest of (a) the federal funds rate plus 0.50%, (b) the prime rate as set by Bank of America, and (c) the Eurocurrency Rate plus 1.00%. The Eurocurrency Rate means (i) if denominated in LIBOR quoted currency, a fluctuating LIBOR per annum rate equal to the London Interbank Offered Rate; (ii) if denominated in Canadian Dollars, the rate per annum equal to the Canadian Dealer Offered Rate; or (iii) the rate per annum as designated with respect to such alternative currency at the time such alternative currency is approved by the Lenders. The Applicable Rate is determined based on the Company’s Consolidated Leverage Ratio (as defined in the Amended Credit Agreement). The Applicable Rate added to the Base Rate Committed Loans ranges from 15 basis points to 100 basis points, and the Applicable Rate added to Eurocurrency Rate Committed Loans and Letters of Credit ranges from 75 basis points to 175 basis points. The Company pays a quarterly fee ranging from 17.5 basis points to 30 basis points on the unused portion of the $175 million available under the Amended Credit Facility. At September 30, 2017, the Company had borrowing availability

of $78.4 million under the Amended Credit Facility net of $92.6 million of borrowings outstanding and standby letters of credit outstanding of $4.0 million.

In addition to the amounts outstanding under the Amended Credit Facility, the Company has various acquired foreign credit facilities totaling approximately $11.6 million. At September 30, 2017, the Company's foreign subsidiaries had $0.1 million in borrowings outstanding as well as $3.0 million in standby letters of credit outstanding.

In April 2017, the Company entered into a three-year interest rate swap agreement transacted with a bank which converts the interest on the first notional $60.0 million of the Company's one-month LIBOR-based borrowings under its revolver loan from a variable rate, plus the borrowing spread, to a fixed rate of 1.58% plus the borrowing spread. The notional amount reduces quarterly by $5.0 million through March 31, 2020. The interest rate swap agreement was accounted for as cash flow hedge.

Operating Cash Flows

Net cash provided by operating activities in the first nine months of 2017 was $46.2 million compared with $47.4 million in the first nine months of 2016. In the first nine months of 2017, net income and non-cash adjustments were $59.5 million compared

to $50.7 million in the first nine months of 2016. Since December 31, 2016, net operating assets and liabilities increased by $13.4 million, primarily due to increases of $12.1 million in accounts receivable, $11.8 million in inventories and $6.7 million in other, net, partially offset by an increase of $18.1 million in accounts payable. The increase in accounts receivable was primarily due to higher net sales in the third quarter of 2017 compared to the fourth quarter of 2016 within the Technical Nonwovens and Thermal/Acoustical Fibers and Metals segments. The increase in inventory was primarily due to increases in net tooling inventory in preparation of new automotive platform launches. The increase in other, net, was primarily due to a $3.8 million decrease in benefit plan liabilities resulting from cash contributions to the Company's domestic pension plan as well as a $2.5 million increase in taxes receivable mainly due to the timing of income tax payments within our foreign operations. The increase in accounts payable was primarily driven by the timing of vendor payments within the Technical Nonwovens segment and payments for capital expenditures within the first nine months of 2017.

Investing Cash Flows

In the first nine months of 2017, net cash used for investing activities was $20.3 million compared to $120.1 million in the first nine months of 2016. Investing activities in the first nine month of 2017 consisted of cash outflows of $19.9 million for capital expenditures and a final purchase price adjustment of $0.3 million related to the Gutsche acquisition. Investing activities in the first nine months of 2016 consisted of cash outflows of $101.1 million to fund the Texel acquisition, net of cash acquired of $1.6 million and $19.0 million for capital expenditures. Capital spending for 2017 is expected to be approximately $30 million to $35 million.

Financing Cash Flows

In the first nine months of 2017, net cash used for financing activities was $37.9 million compared to net cash provided by financing activities of $74.5 million in the first nine months of 2016. The Company received proceeds of $85.0 million from borrowings under its Amended Credit Facility in the third quarter of 2016 to fund the acquisition of Texel. Debt repayments were $35.7 million and $10.3 million in the first nine months of 2017 and 2016, respectively. The Company acquired $2.6 million and $0.8 million in company stock through its equity compensation plans during the first nine months of 2017 and 2016, respectively. The Company received $0.4 million from the exercise of stock options in the first nine months of 2017, compared to $0.6 million in the first nine months of 2016.

Critical Accounting Estimates

The preparation of the Company’s consolidated financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Footnote 1 of the “Notes to Consolidated Financial Statements” and Critical Accounting Estimates in Item 7 of the Company’s Annual Report on Form 10-K for the year ended December 31, 2016, and the “Notes to Condensed Consolidated Financial Statements” of this report describe the significant accounting policies and critical accounting estimates used in the preparation of the consolidated financial statements. The Company’s management is required to make judgments and estimates about the effect of matters that are inherently uncertain. Actual results could differ from management’s estimates. There have been no significant changes in the Company’s critical accounting estimates during the quarter or nine months ended September 30, 2017, other than described below. The Company continues to monitor the recoverability of the long-lived assets at the Company’s DSM Solutech B.V. (“Solutech”) operation as a result of historical operating losses and negative cash flows. Future cash flows are dependent on the success of commercialization efforts of Solutech products by OEMs, the quality of Solutech products and technology advancements and management’s ability to manage costs. In the event that Solutech’s cash flows in the future do not

meet current expectations, management, based upon conditions at the time, would consider taking actions as necessary to improve cash flow. A thorough analysis of all the facts and circumstances existing at the time would need to be performed to determine if recording an impairment loss was appropriate.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Determination of recoverability is based on the Company’s judgment and estimates of undiscounted future cash flows resulting from the use of the assets and their eventual disposition. Measurement of an impairment loss for long-lived assets that management expects to hold and use is based on the fair value of the assets. If the carrying values of the assets are determined to be impaired, then the carrying values are reduced to their estimated fair values. The fair values of the impaired assets are determined based on applying a combination of market approaches, including independent appraisals when appropriate, the income approach, which utilizes cash flow projections, and the cost approach.

During the first quarter of 2017, the Company tested for impairment a discrete long-lived asset group in the Performance Materials segment with a carrying value of $1.3 million, as a result of indicators of possible impairment. To determine the recoverability of this asset group, the Company completed an undiscounted cash flow analysis and compared it to the asset group carrying value. This analysis was primarily dependent on the expectations for net sales over the estimated remaining useful life of the underlying asset group. The impairment test concluded that the asset group was not recoverable as the resulting undiscounted cash flows were less than their carrying amount. Accordingly, the Company determined the fair value of the asset group to assess if there was an impairment. Determining fair value is judgmental in nature and requires the use of significant estimates and assumptions considered to be Level 3 inputs. To determine the estimated fair value of the asset group the Company used the market approach. Under the market approach, the determination of fair value considered market conditions including an independent appraisal of the components of the asset group. The estimated fair value of the asset group was $0.5 million, below its carrying value of $1.3 million, which resulted in a long-lived asset impairment charge of $0.8 million included in selling, product development and administrative expenses during the quarter ended March 31, 2017. This long-lived asset group, with a net book value of $0.5 million, is classified as held for sale as of September 30, 2017.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Lydall’s limited market risk exposures relate to changes in foreign currency exchange rates and interest rates.

Foreign Currency Risk

The Company has operations in Germany, France, the United Kingdom, the Netherlands, China and Canada, in addition to the United States. As a result of this, the Company’s financial results are affected by factors such as changes in foreign currency exchange rates or economic conditions in the foreign markets where the Company manufactures and distributes its products. The Company’s currency exposure is to the US Dollar, the Euro, the British Pound Sterling, the Japanese Yen, the Chinese Yuan, the Hong Kong Dollar and the Canadian Dollar. The Company’s foreign and domestic operations attempt to limit foreign currency exchange transaction risk by completing transactions in local functional currencies, whenever practicable. The Company may periodically enter into foreign currency forward exchange contracts to mitigate exposure to foreign currency volatility. In addition, the Company utilizes bank loans and other debt instruments throughout its operations. To mitigate foreign currency risk, such debt is denominated primarily in the functional currency of the operation maintaining the debt.
The Company also has exposure to fluctuations in currency risk on intercompany loans that the Company makes to certain of its subsidiaries. The Company may periodically enter into foreign currency forward contracts which are intended to offset the impact of foreign currency movements on the underlying intercompany loan obligations.

Interest Rate Risk

The Company’s interest rate exposure is most sensitive to fluctuations in interest rates in the United States and Europe, which impact interest paid on its debt. The Company has debt with variable rates of interest based generally on LIBOR. Increases in interest rates could therefore significantly increase the associated interest payments that the Company is required to make on this debt. From time to time, the Company may enter into interest rate swap agreements to manage interest rate risk. The Company has assessed its exposure to changes in interest rates by analyzing the sensitivity to Lydall’s earnings assuming various changes in market interest rates. Assuming a hypothetical increase of one percentage point in interest rates on the variable interest rate debt as of September 30, 2017, the Company’s net income would decrease by an estimated $0.4 million over a twelve-month period.

In April 2017, the Company entered into a three-year interest rate swap agreement transacted with a bank which converts the interest on the first notional $60.0 million of the Company's one-month LIBOR-based borrowings under its revolver loan from a variable rate, plus the borrowing spread, to a fixed rate of 1.58% plus the borrowing spread. The notional amount reduces quarterly by $5.0 million through March 31, 2020.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company’s management, including the Company’s President and Chief Executive Officer (the “CEO”) and the Executive Vice President and Chief Financial Officer (the "CFO"), conducted an evaluation of the effectiveness of the design and operation of the Company’s disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)). There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. The Company’s disclosure controls and procedures 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 rules and forms of the Securities and Exchange Commission (the "SEC"), and that such information is accumulated and communicated to management of the Company, with the participation of its CEO and CFO, as appropriate to allow timely decisions regarding required disclosure. Based on that evaluation, the CEO and CFO have concluded that the Company's disclosure controls and procedures were effective as of September 30, 2017 at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

The Company completed the acquisitions of Texel and Gutsche on July 7, 2016 and December 31, 2016, respectively. Management considers these transactions to be material to the Company's financial statements. We are currently in the process of evaluating the existing controls and procedures of Texel and Gutsche and integrating the businesses into our Section 404 compliance program

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under the Sarbanes-Oxley Act of 2002 (the “Act”) and the applicable rules and regulations under such Act. The Company will report on its assessment of the effectiveness of internal control over financial reporting of its consolidated operations (including the Texel and Gutsche businesses) within the time period provided by the Act and the applicable SEC rules and regulations concerning business combinations.

Subject to the foregoing, there have not been any changes in the Company’s internal control over financial reporting (as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act) during the quarter ended September 30, 2017 that materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

PART II. OTHER INFORMATION
Item 1. Legal Proceedings

The Company is subject to legal proceedings, claims, investigations and inquiries that arise in the ordinary course of business such as, but not limited to, actions with respect to commercial, intellectual property, employment, personal injury, and environmental matters. The Company believes that it has meritorious defenses against the claims currently asserted against it and intends to defend them vigorously. While the outcome of litigation is inherently uncertain and the Company cannot be sure that it will prevail in any of the cases, subject to the matter referenced below, the Company is not aware of any matters pending that are expected to have a material adverse effect on the Company's business, financial position, results of operations or cash flows.
As previously disclosed, Lydall Gerhardi GmbH Co. & KG ("Lydall Gerhardi"), an indirect wholly-owned subsidiary of Lydall, Inc. and part of Lydall's Thermal/Acoustical Metals reporting segment, has cooperated with the German Federal Cartel Office, Bundeskartellamt ("German Cartel Office") since May 2014 in connection with an investigation relating to violations of German anti-trust laws by and among certain European automotive heat shield manufacturers, including Lydall Gerhardi.
In December 2016, Lydall Gerhardi agreed in principle with the German Cartel Office to pay a settlement amount of €3.3 million. The Company recorded the expense of €3.3 million (approximately $3.5 million U.S. Dollars) in December 2016. In July 2017, Lydall Gerhardi entered into a formal settlement agreement with the German Cartel Office, and remitted payment in full in August 2017 of €3.3 million (approximately $3.9 million U.S. Dollars), definitively concluding this matter.

In the fourth quarter of 2016, as part of a groundwater discharging permitting process, water samples collected from wells and process water basins at the Company's Rochester New Hampshire manufacturing facility, within the Performance Materials segment, showed concentrations of Perfluorinated Compounds ("PFCs") in excess of state ambient groundwater quality standards.
In January 2017, the Company received a notification from the State of New Hampshire Department of Environmental Services ("NHDES") naming Lydall Performance Materials, Inc. a responsible party with respect to the discharge of regulated contaminants and as such, is required to take action to investigate and remediate the impacts in accordance with standards established by the NHDES. The Company is conducting a site investigation, the scope of which has been reviewed by the NHDES, in order to assess the extent of potential soil and groundwater contamination and develop a remedial action. Based on input received from NHDES in March 2017 with regard to the scope of the site investigation, the Company recorded $0.2 million of expense in the first quarter of 2017 associated with the expected costs of conducting this site investigation. Based on additional information obtained through the results of its site investigation and correspondence with NHDES in September 2017, no additional expense was recorded in the third quarter of 2017. In the fourth quarter of 2017, the Company expects to submit its final site investigation report to the NHDES. The Company does not know the scope or extent of its future obligations, if any, that may arise from the NHDES review of the site investigation report and therefore is unable to estimate the cost of any required future corrective actions. During the nine months ended September 30, 2017, the environmental liability of $0.2 million has been reduced by $0.1 million reflecting payments made to vendors, resulting in a balance of $0.1 million at September 30, 2017. While the site investigation is nearly complete, the Company cannot assure that costs will not exceed the current estimates nor that any future corrective action at this location would not have a material effect on the Company's financial condition, results of operations or liquidity. Provisions for such matters are charged to expense when it is probable that a liability has been incurred and reasonable estimates of the liability can be made. Estimates of environmental liabilities are based on a variety of matters, including, but not limited to, the stage of investigation, the stage of the remedial design, evaluation of existing remediation technologies, and presently enacted laws and regulations. In future periods, a number of factors could significantly impact any estimates of environmental remediation costs.

Item 1A. Risk Factors

See Part I, Item 1A of the Company’s Annual Report on Form 10-K for the year ended December 31, 2016, as updated by Part I, Item 1. Legal Proceedings of this report. The risks described in the Annual Report on Form 10-K, and the “Cautionary Note Concerning Forward-Looking Statements” in this report, are not the only risks faced by the Company. Additional risks and uncertainties not currently known or that are currently judged to be immaterial may also materially affect the Company’s business, financial position, results of operations or cash flows.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

During the three months ended September 30, 2017, the Company acquired 2,044 shares of common stock through withholding, pursuant to provisions in agreements with recipients of restricted stock granted under the Company's equity compensation plans, in which the Company withholds that number of shares having fair value equal to each recipient's minimum tax withholding due.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Maximum Number of Shares That May Yet Be Purchased Under the Program
July 1, 2017 - July 31, 2017	—	$ —	—	—
August 1, 2017 - August 31, 2017	341	$ 47.55	—	—
September 1, 2017 - September 30, 2017	1,703	$ 46.25	—	—
	2,044	$ 46.47	—	—

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Item 6. Exhibits

Exhibit Number	Description
31.1	Certification Pursuant to Rule 13a-14(a) and Rule 15d-14(a) under the Securities Exchange Act of 1934, of principal executive officer, filed herewith.
31.2	Certification Pursuant to Rule 13a-14(a) and Rule 15d-14(a) under the Securities Exchange Act of 1934, of principal financial officer, filed herewith.
32.1	Certifications Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document

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.

LYDALL, INC.

October 31, 2017 By: /s/ Scott M. Deakin

Scott M. Deakin
Executive Vice President and Chief Financial Officer
(On behalf of the Registrant and as
Principal Financial Officer)

LYDALL, INC.
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