LYDALL INC /DE/
Form 10-Q
November 02, 2016

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

FORM 10-Q

ýQUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2016

OR

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

For the transition period from to

Commission File Number: 1-7665

LYDALL, INC.
(Exact name of registrant as specified in its charter)

Delaware	06-0865505
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
One Colonial Road, Manchester, Connecticut	06042
(Address of principal executive offices)	(zip code)

(860) 646-1233
(Registrant's telephone number, including area code)
None
(Former name, former address and former fiscal year, if changed since last report)

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 a shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ýNo ¨

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 ýNo ¨

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 definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨Accelerated filer ýNon-accelerated filer ¨Smaller reporting company ¨

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

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

Common Stock $ .01 par value per share.
Total Shares outstanding October 18, 2016 17,157,322

LYDALL, INC.
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Lydall, Inc. and its subsidiaries are hereafter collectively referred to as "Lydall," the "Company" or the "Registrant." Lydall and its subsidiaries' names, abbreviations thereof, logos, and product and service designators are all either the registered or unregistered trademarks or trade names of Lydall and its subsidiaries.

CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Any statements contained in this Quarterly Report on Form 10-Q that are not statements of historical fact may be deemed to be forward-looking statements. All such forward-looking statements are intended to provide management's current expectations for the future operating and financial performance of the Company based on current assumptions relating to the Company's business, the economy and future conditions. Forward-looking statements generally can be identified through the use of words such as "believes," "anticipates," "may," "should," "will," "plans," "projects," "expects," "expectations," "estimates," "forecasts," "pre "prospects," "strategy," "signs" and other words of similar meaning in connection with the discussion of future operating or financial performance. Forward-looking statements may include, among other things, statements relating to future sales, earnings, cash flow, results of operations, uses of cash and other measures of financial performance. Because forward-looking statements relate to the future, they are subject to inherent risks, uncertainties and changes in circumstances that are difficult to predict. Accordingly, the Company's actual results may differ materially from those contemplated by the forward-looking statements. Investors, therefore, are cautioned against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Forward-looking statements in this Quarterly Report on Form 10-Q include, among others, statements relating to:

- Overall economic and business conditions and the effects on the Company's markets;
- Outlook for the fourth quarter of 2016;
- Expected vehicle production in the North American, European or Asian markets;
- Growth opportunities in markets served by the Company;
- Ability to integrate the Texel business which was acquired in the third quarter of 2016;
- Expected future financial and operating performance of Texel;
- Expected gross margin, operating margin and working capital improvements from the application of Lean Six Sigma;
- Product development and new business opportunities;
- Future strategic transactions, including but not limited to: acquisitions, joint ventures, alliances, licensing agreements and divestitures;
- Pension plan funding;
- Future cash flow and uses of cash;
- Future amounts of stock-based compensation expense;
- Future earnings and other measurements of financial performance;
- Ability to meet cash operating requirements;
- Future levels of indebtedness and capital spending;
- Ability to meet financial covenants in the Company's amended credit facility;
- Future impact of the variability of interest rates and foreign currency exchange rates;
- Expected future impact of recently issued accounting pronouncements upon adoption;
- Future effective income tax rates and realization of deferred tax assets;
- Estimates of fair values of reporting units and long-lived assets used in assessing goodwill and long-lived assets for possible impairment; and
- The expected outcomes of legal proceedings and other contingencies.

All forward-looking statements are inherently subject to a number of risks and uncertainties that could cause the actual results of the Company to differ materially from those reflected in forward-looking statements made in this Quarterly Report on Form 10-Q, as well as in press releases and other statements made from time to time by the Company's authorized officers. Such risks and uncertainties include, among others, worldwide economic cycles that affect the markets which the Company's businesses serve, which could have an effect on demand for the Company's products and impact the Company's profitability; disruptions in the global credit and financial markets, including diminished liquidity and credit availability; the uncertainty surrounding the implementation and effect Brexit will have on the Company's operations in the United Kingdom; challenges in the integration of the Texel acquisition; swings in consumer confidence and spending; unstable economic growth; volatility in foreign currency exchange rates; raw material pricing and supply issues; fluctuations in unemployment rates; retention of key employees; increases in fuel prices; and outcomes of legal proceedings, claims and investigations, and with respect to possible violations of German anti-trust laws by employees in the Company's German operation; as well as other risks and uncertainties identified in Part II, Item 1A - Risk Factors of this Quarterly Report on Form 10-Q, and Part I, Item 1A - Risk Factors of Lydall’s Annual Report on Form 10-K for the year ended December 31, 2015. The Company does not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

LYDALL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In Thousands Except Per Share Data)

	Quarter Ended September 30,	
	2016	2015
	(Unaudited)	
Net sales	$155,725	$131,240
Cost of sales	117,532	99,549
Gross profit	38,193	31,691
Selling, product development and administrative expenses	19,896	16,850
Operating income	18,297	14,841
Interest expense	389	187
Other income, net	(218)	(150)
Income before income taxes	18,126	14,804
Income tax expense	5,392	3,618
Income from equity method investment	(51)	—
Net income	$12,785	$11,186
Earnings per share:		
Basic	$0.76	$0.67
Diluted	$0.75	$0.66
Weighted average number of common shares outstanding:		
Basic	16,888	16,715
Diluted	17,138	17,028

See accompanying Notes to Condensed Consolidated Financial Statements.

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LYDALL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In Thousands Except Per Share Data)

	Nine Months Ended September 30,	
	2016	2015
	(Unaudited)	
Net sales	$422,660	$393,107
Cost of sales	316,100	299,827
Gross profit	106,560	93,280
Selling, product development and administrative expenses	59,062	51,332
Operating income	47,498	41,948
Gain on sale of business	—	(18,647)
Interest expense	643	595
Other income, net	(884)	(619)
Income before income taxes	47,739	60,619
Income tax expense	15,023	19,679
Income from equity method investment	(51)	—
Net income	$32,767	$40,940
Earnings per share:		
Basic	$1.94	$2.45
Diluted	$1.92	$2.40
Weighted average number of common shares outstanding:		
Basic	16,859	16,744
Diluted	17,084	17,085

See accompanying Notes to Condensed Consolidated Financial Statements.

LYDALL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Thousands)

	Quarter Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(Unaudited)		(Unaudited)	
Net income	$12,785	$11,186	$32,767	$40,940
Other comprehensive income:				
Foreign currency translation adjustments	(1,056)	(1,318)	(2,324)	(7,305)
Pension liability adjustment, net of tax	142	136	427	410
Comprehensive income	$11,871	$10,004	$30,870	$34,045

See accompanying Notes to Condensed Consolidated Financial Statements.

LYDALL, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In Thousands)

	September 30, 2016 (Unaudited)	December 31, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	$77,117	$ 75,909
Accounts receivable, less allowances (2016 - $1,606; 2015 - $1,251)	110,286	82,149
Inventories	62,412	46,530
Taxes receivable	4,609	4,194
Prepaid expenses	3,581	3,009
Other current assets	4,640	7,512
Total current assets	262,645	219,303
Property, plant and equipment, at cost	352,000	302,618
Accumulated depreciation	(202,308)	(188,185)
Net, property, plant and equipment	149,692	114,433
Goodwill	44,800	16,841
Other intangible assets, net	27,063	5,399
Other assets, net	3,899	2,284
Total assets	$488,099	$ 358,260
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	$42	$ 323
Accounts payable	57,878	42,470
Accrued payroll and other compensation	14,583	10,210
Accrued taxes	3,421	1,200
Other accrued liabilities	7,522	6,797
Total current liabilities	83,446	61,000
Long-term debt	95,125	20,156
Deferred tax liabilities	16,883	14,997
Benefit plan liabilities	10,587	14,222
Other long-term liabilities	3,206	2,660
Commitments and Contingencies (Note 12)		
Stockholders' equity:		
Preferred stock	—	—
Common stock	248	247
Capital in excess of par value	80,421	76,746
Retained earnings	321,046	288,358
Accumulated other comprehensive loss	(36,482)	(34,585)
Treasury stock, at cost	(86,381)	(85,541)
Total stockholders' equity	278,852	245,225
Total liabilities and stockholders' equity	$488,099	$ 358,260

See accompanying Notes to Condensed Consolidated Financial Statements.

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LYDALL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)

	Nine Months Ended September 30,	
	2016	2015
	(Unaudited)	
Cash flows from operating activities:		
Net income	$32,767	$40,940
Adjustments to reconcile net income to net cash provided by operating activities:		
Gain on sale of business	—	(18,647)
Depreciation and amortization	14,064	12,968
Inventory step-up amortization	1,607	—
Deferred income taxes	(719)	(867)
Stock based compensation	3,070	2,283
Income from equity method investment	(51)	—
Loss on disposition of property, plant and equipment	—	273
Changes in operating assets and liabilities:		
Accounts receivable	(15,380)	(11,649)
Inventories	(150)	(11,817)
Accounts payable	10,930	2,511
Accrued payroll and other compensation	2,652	(2,962)
Accrued taxes	2,096	5,987
Other, net	(3,464)	(4,123)
Net cash provided by operating activities	47,422	14,897
Cash flows from investing activities:		
Business acquisitions, net of cash acquired	(101,099)	—
Proceeds from the sale of business, net	—	28,550
Capital expenditures	(19,032)	(15,460)
Net cash (used for) provided by investing activities	(120,131)	13,090
Cash flows from financing activities:		
Proceeds from borrowings	85,000	—
Debt repayments	(10,320)	(428)
Common stock issued	611	1,211
Common stock repurchased	(809)	(8,481)
Excess tax benefit on stock awards	—	522
Net cash provided by (used for) financing activities	74,482	(7,176)
Effect of exchange rate changes on cash	(565)	(2,599)
Increase in cash and cash equivalents	1,208	18,212
Cash and cash equivalents at beginning of period	75,909	62,051
Cash and cash equivalents at end of period	$77,117	$80,263

Non-cash capital expenditures of $4.2 million and $2.4 million were included in accounts payable at September 30, 2016 and 2015, respectively.

See accompanying Notes to Condensed Consolidated Financial Statements.

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 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.

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 have been included in the Consolidated Statements of Operations beginning on the date of the acquisition, July 7, 2016, through September 30, 2016. 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 operating results of the Life Sciences Vital Fluids business have been included in the Consolidated Statement of Operations through the date of disposition, January 30, 2015. The year-end Condensed Consolidated Balance Sheet was derived from the December 31, 2015 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, 2015.

Recent Accounting Pronouncements

In June 2014, the FASB issued ASU No. 2014-12, “Compensation - Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could be Achieved after the Requisite Service Period". This ASU affects entities that grant their employees share-based payments in which terms of the award provide that a performance target that affects vesting could be achieved after the requisite service period. The amendments in this ASU require that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. This ASU was effective for fiscal years beginning after December 15, 2015. The adoption of this ASU did not have any impact on the Company's consolidated financial statements and disclosures.

In August 2014, the FASB issued ASU No. 2014-15, “Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern” (Subtopic 205-40). This ASU establishes specific guidance to an organization's management on their responsibility to evaluate whether there is substantial doubt about the organization's ability to continue as a going concern. This ASU is effective in the first annual period ending after December 15, 2016, and subsequent interim periods. This ASU is not expected to have an impact on the Company’s consolidated financial statements and disclosures.

In November 2015, the FASB issued ASU No. 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes". This ASU requires an entity to classify all deferred tax assets and liabilities, along with any related valuation allowance, as noncurrent on the balance sheet. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by the amendments in this ASU. This ASU is effective for fiscal years beginning after December 15, 2016, with early adoption permitted. The Company adopted this standard prospectively during the quarter ended March 31, 2016. The adoption of this standard resulted in the reclassification of $4.6 million from current deferred income tax assets in the Consolidated Balance Sheet as of March 31, 2016 to noncurrent deferred income tax assets. Prior periods were not retrospectively adjusted.

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. The 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 March 2016, the FASB issued ASU No. 2016-09, "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting". This ASU simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, classification on the statement of cash flows, and accounting for forfeitures. This ASU is effective for fiscal years beginning after December 15, 2016, with early adoption permitted. The Company adopted this accounting standard update in the first quarter of 2016, effective January 1, 2016. As a result of the adoption of this ASU, the Company recognized excess tax benefits from stock award exercises and vesting as a discrete tax benefit of $0.3 million during the first quarter ended March 31, 2016. In addition, as a result of this change, excess tax benefits were excluded from the calculation of assumed proceeds in the Company's calculation of diluted weighted shares. The Company applied these changes prospectively, and therefore prior periods have not been adjusted. As permitted by this ASU, the Company has made an accounting policy election to record forfeitures as they occur rather than estimating expected forfeitures and, as a result, the cumulative effect of this change in accounting principle of $0.1 million was recorded as an adjustment to retained earnings as of January 1, 2016. The ASU permits equity classification of awards for tax withholding up to the maximum individual tax rate in a given jurisdiction for the net settlement of an award. The Company is currently evaluating its policy on tax withholding for award net settlement.

In March 2016, the FASB issued ASU No. 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing", which reduces the complexity when applying the guidance for identifying performance obligations and improves the operability and understandability of the license implementation guidance. In May 2016, the FASB issued ASU No. 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients", which amends the guidance on transition, collectability, non-cash consideration and the presentation of sales and other similar taxes. The effective date for this ASU is the same as the effective date for ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)". In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date", which deferred the effective date of ASU 2014-09 to fiscal years beginning after December 15, 2017, including interim reporting periods within that reporting period. Early adoption is permitted for fiscal years beginning after December 15, 2016. The Company is currently evaluating the method and impact the adoption of these ASUs will have on the Company's consolidated financial statements and disclosures.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Statements", which requires entities to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. Entities will now use forward-looking information to better form their credit loss estimates. The ASU also requires enhanced disclosures to help financial statement users better understand significant estimates and judgments used in estimating credit losses. The broad scope of this ASU includes trade receivables. This ASU is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted beginning after December 15, 2018. The Company is currently evaluating the method and impact the adoption of ASU 2016-13 will have on the Company's consolidated financial statements and disclosures.

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments", which provides guidance on eight specific cash flow classification issues. Current GAAP does not include specific guidance on these eight cash flow classification issues. This ASU is effective for fiscal years beginning after December 15, 2017, with early adoption permitted. The Company is currently evaluating the impact the adoption of ASU 2016-15 will have on the Company's consolidated financial statements and disclosures.

2. Acquisition and Divestiture

Acquisition

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 through 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 have been included in the Condensed Consolidated Statements of Operations since July 7, 2016, the date of the acquisition and are reported within the Technical Nonwovens segment.

During the three and nine months ended September 30, 2016, the Company incurred $0.5 million and $2.6 million of transaction related costs, respectively, primarily related to the acquisition of Texel. These transaction costs include legal fees and other professional services fees to complete the transaction. These corporate office expenses have been recognized in the Company’s Condensed Consolidated Statements of Operations as selling, product development and administrative expenses.

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

In thousands	
Cash and cash equivalents	$1,610
Accounts receivable	13,355
Inventories	17,525
Prepaid expenses and other current assets	2,469
Non-current environmental indemnification receivable (Note 12)	925
Property, plant and equipment, net	31,603
Investment in joint venture	616
Goodwill (Note 4)	28,281
Other intangible assets, net (Note 4)	22,887
Total assets acquired	$119,271
Current liabilities	$(8,520)
Long-term environmental remediation liability (Note 12)	(925)
Deferred tax liabilities	(7,117)
Total liabilities assumed	(16,562)
Net assets acquired	$102,709

The following table reflects the unaudited pro forma operating results of the Company for the three and nine months ended September 30, 2016 and the three and nine months ended September 30, 2015, which give effect to the acquisition of Texel as if it had occurred on January 1, 2015. The pro forma information includes the historical financial results of the Company and Texel. The pro forma results are not necessarily indicative of the operating results that would have occurred had the acquisition 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 acquisition.

	(Unaudited Pro Forma) Quarter Ended September 30,		(Unaudited Pro Forma) Nine Months Ended September 30,	
In thousands	2016	2015	2016	2015
Net sales	$157,528	$153,180	$462,068	$447,102
Net income	$14,679	$12,630	$36,497	$41,319
Earnings per share:				
Basic	$0.87	$0.76	$2.16	$2.47
Diluted	$0.86	$0.74	$2.14	$2.42

Pro forma earnings during the three months ended September 30, 2016 were adjusted to exclude non-recurring items such as acquisition related costs of $0.7 million and expense related to the fair value adjustment to inventory of $1.6 million. No amount is included in the pro forma earnings for the three months ended September 30, 2016 related to inventory fair value adjustments which would have been recognized in cost of sales as the corresponding inventory would have been completely sold during 2015. Pro forma earnings during the three months ended September 30, 2016 were adjusted to include additional expense of $0.3 million related to the amortization of acquired Technical Nonwoven intangible assets recognized at fair value in purchase accounting.

Pro forma earnings during the three months ended September 30, 2015 were adjusted to include expense of $0.6 million related to the amortization of acquired Technical Nonwoven intangible assets recognized at fair value in purchase accounting, interest expense of $0.2 million associated with borrowings under the Company’s Amended Credit Facility, additional depreciation expense of $0.3 million resulting from increased basis of property, plant and equipment, and expense of $0.2 million related to the fair value adjustment to inventory. Customer freight billings of $0.5 million were reclassed from costs of sales to net sales for the three months ended September 30, 2015 to conform to GAAP.

Pro forma earnings during the nine months ended September 30, 2016 were adjusted to exclude non-recurring items such as acquisition related costs of $2.3 million and expense related to the fair value adjustment to inventory of $1.6 million, and to include $1.6 million for additional amortization of the acquired Technical Nonwoven intangible assets recognized at fair value in purchase accounting, additional interest expense of $0.2 million associated with borrowings under the Company’s Amended Credit Facility, and additional depreciation expense of $0.6 million resulting from increased basis of property, plant and equipment. No amount is included in the pro forma earnings during the nine months ended September 30, 2016 related to inventory fair value adjustments which would have been recognized in cost of sales as the corresponding inventory would have been completely sold during 2015. Customer freight billings of $0.9 million were reclassed from costs of sales to net sales for the nine ended September 30, 2016.

Pro forma earnings during the nine months ended September 30, 2015 were adjusted to include acquisition-related costs of $0.4 million, expense of $2.5 million related to the amortization of the fair value adjustments to inventory and $1.6 million of additional amortization of the acquired Technical Nonwoven intangible assets recognized at fair value in purchase accounting, additional depreciation expense of $1.0 million resulting from increased basis of property, plant and equipment, as well as $0.4 million of interest expense associated with borrowings under the Company’s Amended Credit Facility. Customer freight billings of $1.3 million were reclassed from costs of sales to net sales for the nine months ended September 30, 2015 to conform to GAAP.

Divestiture

On January 30, 2015, the Company sold all of the outstanding shares of common stock of its Life Sciences Vital Fluids business, reported as Other Products and Services, for a cash purchase price of $30.1 million. The disposition was completed pursuant to a Stock Purchase and Sale Agreement, dated January 30, 2015, by and among the Company, and the buyer. The Company recognized a pre-tax gain on the sale of $18.6 million, reported as non-operating income in the first quarter of 2015. Net of income taxes, the Company reported a gain on sale of $11.8 million.

In accordance with the revised accounting guidance for reporting discontinued operations, the Company did not report Life Sciences Vital Fluids as a discontinued operation as it would not be considered a strategic shift in Lydall's business. Accordingly, the operating results of Life Sciences Vital Fluids are included in the operating results of the Company through the sale date.

3. Inventories

Inventories as of September 30, 2016 and December 31, 2015 were as follows:

In thousands	September 30, 2016	December 31, 2015
Raw materials	$ 26,061	$ 17,128
Work in process	15,058	14,670
Finished goods	22,395	15,048
	63,514	46,846
Less: Progress billings	(1,102)	(316)
Total inventories	$ 62,412	$ 46,530

Included in work in process is gross tooling inventory of $8.5 million and $9.5 million at September 30, 2016 and December 31, 2015, respectively. Tooling inventory, net of progress billings, was $7.4 million and $9.2 million at September 30, 2016 and December 31, 2015, 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, 2016 were as follows:

In thousands	December 31, 2015	Currency translation adjustments	Additions	September 30, 2016
Performance Materials	$ 12,898	$ 136	$ —	$ 13,034
Technical Nonwovens	3,943	(458)	28,281	31,766
Total goodwill	$ 16,841	$ (322)	$ 28,281	$ 44,800

The additional goodwill of $28.3 million within the Technical Nonwovens segment results from the acquisition of Texel on July 7, 2016. The amount allocated to goodwill is reflective of the benefits the Company expects to realize from its entrance into the geosynthetic market, expansion in the liquid filtration and other industrial markets, and Texel's assembled workforce. None of the goodwill is expected to be deductible for income tax purposes.

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, 2016 and December 31, 2015:

	September 30, 2016		December 31, 2015	
In thousands	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortized intangible assets				
Customer Relationships	$22,875	$ (891)	$2,412	$ (411)
Patents	4,259	(3,460)	4,137	(3,272)
Technology	2,500	(435)	2,500	(310)
Trade Names	2,276	(246)	220	(82)
License Agreements	611	(611)	771	(771)
Other	393	(208)	392	(187)
Total amortized intangible assets	$32,914	$ (5,851)	$10,432	$ (5,033)

In connection with the acquisition of Texel on July 7, 2016, the Company recorded intangible assets of $22.9 million, which included $20.8 million of customer relationships and $2.1 million of trade names. The weighted average useful lives of the acquired assets were 14 years and 5 years, respectively.

5. Long-term Debt and Financing Arrangements

On July 7, 2016, the Company amended its $100.0 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.

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 $30.0 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, 2016, the Company had borrowing availability of $76.2 million under the $175.0 million Amended Credit Facility net of standby letters of credit outstanding of $3.8 million. The Company was in compliance with all covenants at September 30, 2016 and December 31, 2015.

The Company had a capital lease agreement for the land and building at the St. Nazaire, France operating facility, included in the Thermal/Acoustical Metals segment, that required monthly principal and interest payments through July 2016. The capital lease provided an option for the Company to purchase the land and building at the end of the lease for a nominal amount. In the third quarter of 2016, the Company exercised its option to purchase the land and building.

Total outstanding debt consists of:

In thousands	Effective Rate		Maturity	September 30, 2016	December 31, 2015
Revolver Loan, due July 7, 2021	1.27	%	2021	$ 95,000	$ 20,000
Capital Lease, land and building, St. Nazaire, France	5.44	%	2016	—	277
Capital Lease, manufacturing equipment, Hamptonville, North Carolina	5.00	%	2017	3	9
Capital Lease, manufacturing equipment, Hamptonville, North Carolina	1.65	%	2020	164	193
				95,167	20,479
Less portion due within one year				(42)	(323)
Total long-term debt				$ 95,125	$ 20,156

The carrying value of the Company's $175.0 million Amended Credit Facility approximates fair value given the variable rate nature of the debt. This debt would be classified as a Level 2 liability within the fair value hierarchy.

The weighted average interest rate on long-term debt was 1.3% for the nine months ended September 30, 2016 and 1.3% for the year ended December 31, 2015.

6. Equity Compensation Plans

As of September 30, 2016, 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 and $0.8 million for the quarters ended September 30, 2016 and September 30, 2015, respectively, and $3.1 million and $2.3 million for the nine months ended September 30, 2016 and September 30, 2015, 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, 2016:

In thousands except per share amounts and years	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at September 30, 2016	419	$ 21.43	6.8	$ 12,435
Exercisable at September 30, 2016	198	$ 12.57	5.0	$ 7,620
Unvested at September 30, 2016	221	$ 29.35	8.4	$ 4,814

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. There were no stock options granted and 16,275 stock options exercised during the quarter ended September 30, 2015 and no stock options granted and 118,321 stock options exercised during the nine months ended September 30, 2015. The amount of cash received from the exercise of stock options was $0.1 million during the quarter ended September 30, 2015 and $1.2 million during the nine months ended September 30, 2015. The intrinsic value of stock options exercised was $0.3 million with a tax benefit of $0.1 million during the quarter ended September 30, 2015 and the intrinsic value of stock options exercised was $2.3 million with a tax benefit of $0.7 million during the nine months ended September 30, 2015. At September 30, 2016, the total unrecognized compensation cost related to non-vested stock option awards was approximately $2.1 million, with a weighted average expected amortization period of 2.7 years.

Restricted Stock

Restricted stock includes both performance-based and time-based awards. There were 8,570 time-based restricted stock units granted during the quarter ended September 30, 2016 and 16,500 time-based restricted shares and units granted during the nine months ended September 30, 2016. There were no performance-based restricted shares granted during the quarter ended September 30, 2016, and 7,380 performance shares which have a 2018 earnings per share target, granted in the nine months ended September 30, 2016. There were no performance-based shares that vested during the quarter ended September 30, 2016 and there were 65,087 performance-based restricted shares that vested in 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. There were 18,000 time-based and no performance-based restricted shares granted during the quarter and nine months ended September 30, 2015. There were no performance-based shares that vested during the quarter and nine months ended September 30, 2015. There were 14,071 time-based restricted shares that vested during the nine months ended September 30, 2015. At September 30, 2016, there were 266,363 unvested restricted stock awards with total unrecognized compensation cost related to these awards of $3.4 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.

7. Stock Repurchases

During the nine months ended September 30, 2016, the Company purchased 28,886 shares of common stock valued at $0.8 million, through withholding, pursuant to provisions in agreements with recipients of restricted stock granted under the Company’s equity compensation plans, which allow the Company to withhold the number of shares having fair value equal to each recipient’s minimum tax withholding due.

8. Employer Sponsored Benefit Plans

As of September 30, 2016, 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.

The Company's total planned contribution is $3.6 million in cash for its domestic pension plan in 2016. Contributions of $3.6 million were made during the third quarter and nine months ended September 30, 2016. Contributions of $5.3 million were made during the third quarter of 2015 and $5.6 million were made for the nine months ended September 30, 2015.

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, 2016 and 2015:

	Quarter Ended September 30,		Nine Months Ended September 30,	
In thousands	2016	2015	2016	2015
Components of net periodic benefit cost				
Interest cost	$535	$517	$1,605	$1,550
Expected return on assets	(605)	(590)	(1,815)	(1,770)
Amortization of actuarial loss	233	224	700	673
Net periodic benefit cost	$163	$151	$490	$453

9. Income Taxes

The Company’s effective tax rate was 29.7% and 24.4% for the quarters ended September 30, 2016 and 2015, respectively, and 31.5% and 32.5% for the nine months ended September 30, 2016 and 2015, respectively. The difference in the Company’s effective tax rate for the quarter ended September 30, 2016 compared to the quarter ended September 30, 2015 was primarily due to a one-time discrete tax benefit of $1.2 million recognized in the third quarter of 2015 primarily related to research and development tax credits and the release of reserves for uncertain tax positions related to tax years that statutorily closed. In comparison, the third quarter of 2016 was negatively impacted by a one-time discrete tax expense of $0.5 million for nondeductible acquisition related expenses. Lowering the tax rate in the third quarter of 2016 compared to the same quarter of 2015 was a greater amount of pretax earnings derived from countries with lower tax rates than the U.S. The difference in the Company's effective tax rate for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2015 was primarily due to a more favorable mix of earnings derived from countries with lower tax rates, offset by a discrete tax expense of $0.5 million for acquisition related expenses in the third quarter of 2016 and the discrete tax benefit of $1.2 million in the third quarter of 2015.

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 2013, state and local examinations for years before 2011, 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 lower or higher than anticipated 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, the impact of the completion of acquisitions or divestitures, changes in tax rates or tax laws and the completion of tax projects and audits.

10. Earnings Per Share

For the quarters and nine months ended September 30, 2016 and 2015, 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 September 30,		Nine Months Ended September 30,	
In thousands	2016	2015	2016	2015
Basic average common shares outstanding	16,888	16,715	16,859	16,744
Effect of dilutive options and restricted stock awards	250	313	225	341
Diluted average common shares outstanding	17,138	17,028	17,084	17,085

For each of the quarters ended September 30, 2016 and 2015, stock options for 0.1 million 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, 2016 and 2015, stock options for 0.1 million shares of common stock were not considered in computing diluted earnings per common share because they were antidilutive.

11. Segment Information

The Company's reportable segments are Performance Materials, Technical Nonwovens, Thermal/Acoustical Metals, and Thermal/Acoustical Fibers. Other Products and Services ("OPS") included Life Sciences Vital Fluids, which was sold on January 30, 2015.

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 Filtration products have been developed to meet the requirements of life science applications including biopharmaceutical pre-filtration and clarification, diagnostic and analytical testing, respiratory protection, life protection, medical air filtration, drinking water filtration and high purity process filtration such as that found in food and beverage and medical applications. Lydall also offers Solupor® Membrane specialty microporous membranes that are utilized in various markets and applications including air and liquid filtration and transdermal drug delivery. Solupor® membranes incorporate a unique combination of mechanical strength, chemical inertness, and high porosity in a unique open structure.

Technical Nonwovens Segment

The Technical Nonwovens segment primarily produces needle punch nonwoven solutions for a myriad of industries and applications. The 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 commonly used filter technology to satisfy increasing emission control regulations in a wide range of industries, including power, cement, steel, asphalt, incineration, mining, food, and pharmaceutical. The Advanced Materials products include nonwoven rolled-good media that is used in other commercial applications and predominantly serves the geosynthetics, automotive, industrial and medical markets. The 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 traditional scrim supported filtration felts. 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 for the transportation sector to assist primarily in the reduction of powertrain and road noise as well as thermally shield sensitive components from high heat. Lydall products are found in the underbody (tunnel, fuel tank, exhaust, rear muffler and spare tire) and under hood (engine compartment, turbo charger, and manifolds) of cars, trucks, SUVs, heavy duty trucks and recreational vehicles.

Thermal/Acoustical Metals segment products are formed on production lines capable of combining multiple layers of metal and thermal or acoustical 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 mounted to high temperature surfaces like exhaust down-pipes, turbochargers or engine manifolds using aluminized and stainless steel with high performance heat insulating materials; Powertrain heat shields that absorb noise at the source or are acoustically transparent and do not contribute to the engine's noise budget; and Durable and thermally robust solutions for 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.

Other Products and Services

The Life Sciences Vital Fluids business offered specialty products for blood filtration devices, blood transfusion single-use containers and the design and manufacture of single-use solutions for cell growth, frozen storage and fluid handling, as well as equipment for bioprocessing applications.

On January 30, 2015, the Company sold all of the outstanding shares of common stock of its Life Sciences Vital Fluids business for a cash purchase price of $30.1 million. The disposition was completed pursuant to a Stock Purchase and Sale Agreement, dated January 30, 2015, by and among the Company, and the Buyer. The Company recognized an after tax gain on the sale of this business of approximately $11.8 million in the first quarter of 2015.

The tables below present net sales and operating income by segment for the quarters and nine months ended September 30, 2016 and 2015, and also a reconciliation of total segment net sales and operating income to total consolidated net sales and operating income.

Consolidated net sales by segment:

In thousands	Quarter Ended September 30, 2016	Quarter Ended September 30, 2015	Nine Months Ended September 30, 2016	Nine Months Ended September 30, 2015
Performance Materials Segment:				
Filtration	$18,045	$16,597	$53,861	$48,140
Thermal Insulation	7,081	6,921	20,570	21,445
Life Sciences Filtration	3,705	2,924	10,749	7,947
Performance Materials Segment net sales	28,831	26,442	85,180	77,532
Technical Nonwovens Segment (1):				
Industrial Filtration	25,414	27,182	67,805	85,519
Advanced Materials (2)	26,870	6,973	43,526	18,738
Technical Nonwovens net sales	52,284	34,155	111,331	104,257
Thermal/Acoustical Metals Segment:				
Metal parts	39,807	35,354	117,578	106,735
Tooling	4,830	4,587	14,301	12,753
Thermal/Acoustical Metals Segment net sales	44,637	39,941	131,879	119,488
Thermal/Acoustical Fibers Segment:				
Fiber parts	35,073	35,042	107,629	100,740
Tooling	1,356	639	4,829	1,528
Thermal/Acoustical Fibers Segment net sales	36,429	35,681	112,458	102,268
Other Products and Services:				
Life Sciences Vital Fluids (3)	—	—	—	1,671
Other Products and Services net sales	—	—	—	1,671
Eliminations and Other (2)	(6,456)	(4,979)	(18,188)	(12,109)
Consolidated Net Sales	$155,725	$131,240	$422,660	$393,107

Operating income by segment:

In thousands	Quarter Ended September 30, 2016	Quarter Ended September 30, 2015	Nine Months Ended September 30, 2016	Nine Months Ended September 30, 2015
Performance Materials	$3,283	$2,500	$10,102	$6,071
Technical Nonwovens (1)	5,662	3,352	12,807	11,058
Thermal/Acoustical Metals	5,451	3,889	13,090	12,323
Thermal/Acoustical Fibers	10,026	10,082	30,980	27,719
Other Products and Services (3)	—	—	—	118
Corporate Office Expenses	(6,125)	(4,982)	(19,481)	(15,341)
Consolidated Operating Income	$18,297	$14,841	$47,498	$41,948

Total assets by segment:

In thousands	September 30, 2016	December 31, 2015
Performance Materials	$ 69,887	$ 66,706
Technical Nonwovens	211,253	89,566
Thermal/Acoustical Metals	124,377	111,195
Thermal/Acoustical Fibers	47,407	38,881
Corporate Office Expenses	35,175	51,912
Total Assets	$ 488,099	$ 358,260

(1) The Technical Nonwovens segment reports results of Texel for the period following the date of acquisition of July 7, 2016 through September 30, 2016.

(2) Included in the Technical Nonwovens segment and Eliminations and Other is $4.5 million and $4.1 million in intercompany sales to the T/A Fibers segment for the quarters ended September 30, 2016 and 2015, respectively, and $13.6 million and $9.5 million for the nine months ended September 30, 2016 and 2015, respectively.

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