MATERION Corp
Form 10-Q
October 26, 2017
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q
(Mark One)

ý QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 29, 2017

¨ 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 001-15885
MATERION CORPORATION
(Exact name of Registrant as specified in charter)

Ohio	34-1919973
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
6070 Parkland Blvd., Mayfield Heights, Ohio	44124
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code:
216-486-4200
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No ¨
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No þ

Number of Shares of Common Stock, without par value, outstanding at September 29, 2017: 20,043,474.

PART I FINANCIAL INFORMATION
MATERION CORPORATION AND SUBSIDIARIES

Item 1. Financial Statements
The consolidated financial statements of Materion Corporation and its subsidiaries for the third quarter and nine months ended September 29, 2017 are as follows:

Materion Corporation and Subsidiaries
Consolidated Statements of Income
(Unaudited)

	Third Quarter Ended		Nine Months Ended	
(Thousands, except per share amounts)	Sept. 29, 2017	Sept. 30, 2016	Sept. 29, 2017	Sept. 30, 2016
Net sales	$294,268	$249,619	$830,779	$734,906
Cost of sales	239,065	198,864	678,023	595,488
Gross margin	55,203	50,755	152,756	139,418
Selling, general, and administrative expense	36,415	34,177	108,118	97,101
Research and development expense	3,429	3,237	10,103	9,860
Other—net	3,801	3,190	9,823	8,997
Operating profit	11,558	10,151	24,712	23,460
Interest expense—net	533	490	1,721	1,417
Income before income taxes	11,025	9,661	22,991	22,043
Income tax expense	1,705	1,616	3,308	3,081
Net income	$9,320	$8,045	$19,683	$18,962
Basic earnings per share:				
Net income per share of common stock	$0.47	$0.40	$0.98	$0.95
Diluted earnings per share:				
Net income per share of common stock	$0.46	$0.40	$0.97	$0.94
Cash dividends per share	$0.100	$0.095	$0.295	$0.280
Weighted-average number of shares of common stock outstanding:				
Basic	20,040	19,957	20,007	19,996
Diluted	20,411	20,192	20,361	20,209

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

Materion Corporation and Subsidiaries
Consolidated Statements of Comprehensive Income
(Unaudited)

	Third Quarter Ended		Nine Months Ended	
	Sept. 29,	Sept. 30,	Sept. 29,	Sept. 30,
(Thousands)	2017	2016	2017	2016
Net income	$9,320	$8,045	$19,683	$18,962
Other comprehensive income (loss):				
Foreign currency translation adjustment	271	467	1,649	2,918
Derivative and hedging activity, net of tax	(120)	132	(755)	(489)
Pension and post-employment benefit adjustment, net of tax	881	673	2,397	2,923
Other comprehensive income	1,032	1,272	3,291	5,352
Comprehensive income	$10,352	$9,317	$22,974	$24,314

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

Materion Corporation and Subsidiaries
Consolidated Balance Sheets

(Thousands)	(Unaudited) Sept. 29, 2017	Dec. 31, 2016
Assets		
Current assets		
Cash and cash equivalents	$ 22,486	$ 31,464
Accounts receivable	125,417	100,817
Inventories	220,223	200,865
Prepaid and other current assets	19,115	12,138
Total current assets	387,241	345,284
Long-term deferred income taxes	40,332	39,409
Property, plant, and equipment	877,002	861,267
Less allowances for depreciation, depletion, and amortization	(632,435)	(608,636)
Property, plant, and equipment—net	244,567	252,631
Intangible assets	10,771	11,074
Other assets	6,312	5,950
Goodwill	89,720	86,950
Total Assets	$ 778,943	$ 741,298
Liabilities and Shareholders’ Equity		
Current liabilities		
Short-term debt	$ 767	$ 733
Accounts payable	44,678	32,533
Salaries and wages	30,889	29,885
Other liabilities and accrued items	27,950	21,340
Income taxes	2,953	4,781
Unearned revenue	5,859	1,105
Total current liabilities	113,096	90,377
Other long-term liabilities	18,968	17,979
Retirement and post-employment benefits	92,014	91,505
Unearned income	37,991	41,369
Long-term income taxes	1,593	2,100
Deferred income taxes	279	274
Long-term debt	3,010	3,605
Shareholders’ equity		
Serial preferred stock	—	—
Common stock	219,817	212,702
Retained earnings	531,683	517,903
Common stock in treasury	(161,030)	(154,399)
Accumulated other comprehensive loss	(82,890)	(86,181)
Other equity transactions	4,412	4,064
Total shareholders' equity	511,992	494,089
Total Liabilities and Shareholders’ Equity	$ 778,943	$ 741,298

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

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Materion Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(Unaudited)

(Thousands)	Nine Months Ended Sept. 29, 2017	Sept. 30, 2016
Cash flows from operating activities:		
Net income	$19,683	$18,962
Adjustments to reconcile net income to net cash provided from (used in) operating activities:		
Depreciation, depletion, and amortization	33,444	34,379
Amortization of deferred financing costs in interest expense	670	417
Stock-based compensation expense (non-cash)	4,303	2,880
(Gain) loss on sale of property, plant, and equipment	207	(601)
Deferred income tax expense (benefit)	1,073	(676)
Changes in assets and liabilities net of acquired assets and liabilities:		
Decrease (increase) in accounts receivable	(21,572)	(19,781)
Decrease (increase) in inventory	(9,953)	3,294
Decrease (increase) in prepaid and other current assets	(6,077)	(956)
Increase (decrease) in accounts payable and accrued expenses	17,991	(2,207)
Increase (decrease) in unearned revenue	4,746	(2,546)
Increase (decrease) in interest and taxes payable	(2,083)	898
Increase (decrease) in long-term liabilities	(5,611)	(9,320)
Other-net	(1,324)	2,479
Net cash provided by operating activities	35,497	27,222
Cash flows from investing activities:		
Payments for purchase of property, plant, and equipment	(17,759)	(20,052)
Payments for mine development	(620)	(8,934)
Payments for acquisition	(16,504)	—
Proceeds from sale of property, plant, and equipment	53	1,366
Net cash used in investing activities	(34,830)	(27,620)
Cash flows from financing activities:		
Proceeds from issuance of short-term debt, net	—	3,777
Proceeds from issuance of long-term debt	55,000	10,000
Repayment of long-term debt	(55,608)	(10,517)
Principal payments under capital lease obligations	(644)	(549)
Cash dividends paid	(5,903)	(5,601)
Deferred financing costs	(300)	(1,000)
Common shares withheld for taxes	(2,397)	(868)
Repurchase of common stock	(1,086)	(3,798)
Net cash used in financing activities	(10,938)	(8,556)
Effects of exchange rate changes	1,293	524
Net change in cash and cash equivalents	(8,978)	(8,430)
Cash and cash equivalents at beginning of period	31,464	24,236
Cash and cash equivalents at end of period	$22,486	$15,806

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

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Materion Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

Note A — Accounting Policies

(Dollars in thousands)
Basis of Presentation: In management’s opinion, the accompanying consolidated financial statements of Materion Corporation and its subsidiaries (referred to herein as the Company, our, we, or us) contain all of the adjustments necessary to present fairly the financial position, results of operations, and cash flows for the interim periods reported. All adjustments were of a normal and recurring nature. Certain amounts in prior years have been reclassified to conform to the 2017 consolidated financial statement presentation.
These financial statements should be read in conjunction with the consolidated financial statements and related notes included in the Company's 2016 Annual Report on Form 10-K. The interim period results are not necessarily indicative of the results to be expected for the full year.
Business Combinations: The Company records assets acquired and liabilities assumed at the date of acquisition at their respective fair values. Any intangible assets acquired in a business combination are recognized and reported apart from goodwill. Goodwill represents the excess purchase price over the fair value of the tangible net assets and intangible assets acquired in a business combination. Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred.
The amounts reflected in Note B to the Consolidated Financial Statements are the results of the preliminary purchase price allocation and will be updated upon completion of the final valuation. The Company is required to complete the purchase price allocation within 12 months of the acquisition date. If such completion of the allocation results in a change in the preliminary values, the measurement period adjustment will be recognized in the period in which the adjustment amount is determined.
New Pronouncements Adopted: In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-09, Improvements to Employee Share-Based Payment Accounting, which impacts several aspects of accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. Under the new standard, income tax benefits and deficiencies are to be recognized as income tax expense or benefit in the income statement, and the tax effects of exercised or vested awards will be treated as discrete items in the reporting period in which they occur. An entity will also recognize excess tax benefits regardless of whether the benefit reduces taxes payable in the reporting period. Excess tax benefits will be classified, along with other income tax cash flows, as an operating activity. In regard to forfeitures, the entity may make an entity-wide accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures as they occur. The ASU, which is required to be applied on a modified retrospective basis, will be effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2016. The Company adopted the new guidance during the first quarter of 2017. An impact of adoption was the recognition of excess tax benefits in Income tax expense rather than Shareholders' equity in 2017. As a result, the Company recognized discrete tax benefits of $129 and $503 in Income tax expense during the third quarter and first nine months of 2017, respectively. The cash flow classification requirements of ASU 2016-09 were applied retrospectively. As a result, for the nine months ended September 30, 2016, cash flows from operating activities increased by $868 with a corresponding decrease to cash flows from financing activities. None of the other provisions in this ASU had a material effect on the Company's consolidated financial statements.
New Pronouncements Issued: In August 2017, the FASB issued ASU 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities, which amends and simplifies existing guidance to allow companies to more accurately present the economic effects of risk management activities in the financial statements. This ASU is effective for fiscal years beginning after December 15, 2018, including interim periods within

those periods, with early adoption permitted. The Company is currently evaluating the impact of adopting this new guidance on its consolidated financial statements.

In March 2017, the FASB issued ASU 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, which requires an employer to report the service cost component of net benefit cost in the same line item as other compensation costs arising from services rendered by pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. The amendments also allow only the service cost component to be eligible for capitalization. This ASU is effective for fiscal years beginning after December 15, 2017, including interim periods within those periods, with early adoption permitted. The amendments should be applied retrospectively for the presentation of service cost and other components of net benefit cost on the income statement and prospectively for the capitalization of service cost and net periodic postretirement benefits in assets. The Company is currently evaluating the impact of adopting this new guidance on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases, which eliminates the off-balance-sheet accounting for leases. The new guidance will require lessees to report their operating leases as both an asset and liability on the balance sheet and disclose key information about leasing arrangements. The ASU, which is required to be applied on a modified retrospective basis, will be effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact of adopting this new guidance on its consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers, which supersedes previous revenue recognition guidance. The new standard requires that a company recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those goods or services. Companies will need to use more judgment and estimates than under the guidance currently in effect, including estimating the amount of variable revenue to recognize over each identified performance obligation. Additional disclosures will be required to help users of financial statements understand the nature, amount, and timing of revenue and cash flows arising from contracts. This ASU is effective beginning in fiscal year 2018 and can be adopted either retrospectively or as a cumulative-effect adjustment as of the date of adoption. To evaluate the impact of adopting this new guidance on the consolidated financial statements, the Company established a cross-functional implementation team to assess its revenue streams against the requirements of this ASU. In addition, the Company is in the process of identifying and implementing changes to its processes and controls to meet the standard's updated reporting and disclosure requirements. The Company plans to adopt the standard as of the first quarter of 2018 using the modified retrospective approach and will record a cumulative-effect adjustment to equity for open contracts as of January 1, 2018. The Company continues to update its assessment of the impact of the standard and related updates to its consolidated financial statements, and will disclose material impacts, if any.

No other recently issued or effective ASUs had, or are expected to have, a material effect on the Company's results of operations, financial condition, or liquidity.

Note B — Acquisitions

On February 28, 2017, the Company acquired the target materials business of the Heraeus Group (HTB), of Hanau, Germany, for $16.5 million. This business manufactures precious and non-precious metal target materials for the architectural and automotive glass, electronic display, photovoltaic, and semiconductor markets at facilities in Germany, Taiwan, and the United States. This business operates within the Advanced Materials segment, and the results of operations are included as of the date of acquisition.

Materion Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

The Company will make adjustments to the purchase price allocation prior to completion of the measurement period, as necessary. Only items identified as of the acquisition date will be considered for subsequent adjustment. The purchase price allocation for the acquisition is as follows:

(Thousands)	Amount
Assets:	
Inventories	$7,221
Prepaid and other current assets	1,107
Long-term deferred income taxes	1,450
Property, plant, and equipment	7,637
Intangible assets	3,236
Goodwill	2,605
Total assets acquired	$23,256
Liabilities:	
Other liabilities and accrued items	$1,030
Other long-term liabilities	430
Retirement and post-employment benefits	5,292
Total liabilities assumed	$6,752
Total purchase price	$16,504

As part of the acquisition, the Company recorded approximately $2.6 million of goodwill. Goodwill was calculated as the excess of the purchase price over the estimated fair values of the tangible net assets and intangible assets acquired. Also, the Company acquired approximately $3.2 million of other intangible assets, which will be amortized using the straight-line method over an average life of about ten years. The following table reports the intangible assets by asset category and useful life:

(Thousands)	Value at Acquisition	Useful Life
Customer relationships	$ 1,861	15 years
Technology	1,375	3 years
Total	$ 3,236	

Note C — Segment Reporting

The Company has the following operating segments: Performance Alloys and Composites, Advanced Materials, Precision Coatings, and Other. The Company's operating segments represent components of the Company for which separate financial information is available that is utilized on a regular basis by the Chief Executive Officer, the Company's Chief Operating Decision Maker, in determining how to allocate the Company's resources and evaluate performance.

Performance Alloys and Composites produces strip and bulk form alloy products, strip metal products with clad inlay and overlay metals, beryllium-based metals, beryllium, and aluminum metal matrix composites, in rod, sheet, foil, and a variety of customized forms, beryllia ceramics, and bulk metallic glass materials.

Advanced Materials produces advanced chemicals, microelectric packaging, precious metal, non-precious metal, and specialty metal products, including vapor deposition targets, frame lid assemblies, clad and precious metal preforms,

high temperature braze materials, and ultra-fine wire.
Precision Coatings produces thin film coatings, optical filter materials, sputter-coated, and precision-converted thin film materials.

The Other reportable segment includes unallocated corporate costs and assets.

(Thousands)	Performance Alloys and Composites	Advanced Materials	Precision Coatings	Other	Total
Third Quarter 2017					
Net sales	$ 109,393	$ 157,770	$ 27,105	$ —	$ 294,268
Intersegment sales	54	12,814	—	—	12,868
Value-added sales	90,637	60,391	21,896	(1,542)	171,382
Operating profit (loss)	6,786	9,756	1,613	(6,597)	11,558
Third Quarter 2016					
Net sales	$ 103,699	$ 107,250	$ 38,670	$ —	$ 249,619
Intersegment sales	47	21,505	—	—	21,552
Value-added sales	87,247	45,960	25,803	(2,009)	157,001
Operating profit (loss)	4,357	8,245	3,432	(5,883)	10,151
First Nine Months 2017					
Net sales	$ 310,487	$ 429,550	$ 90,742	$ —	$ 830,779
Intersegment sales	113	42,508	—	—	42,621
Value-added sales	262,534	169,720	67,810	(3,602)	496,462
Operating profit (loss)	12,523	24,873	6,145	(18,829)	24,712
First Nine Months 2016					
Net sales	$ 292,024	$ 328,927	$ 113,955	$ —	$ 734,906
Intersegment sales	226	54,110	—	—	54,336
Value-added sales	248,799	135,019	75,548	(4,573)	454,793
Operating profit (loss)	6,103	20,748	9,803	(13,194)	23,460

Intersegment sales are eliminated in consolidation.

Note D — Other-net

Other-net expense for the third quarter and first nine months of 2017 and 2016 is summarized as follows:

(Thousands)	Third Quarter Ended Sept. 29, 2017	Sept. 30, 2016	Nine Months Ended Sept. 29, 2017	Sept. 30, 2016
Metal consignment fees	$2,436	$1,665	$6,183	$4,851
Amortization of intangible assets	1,179	1,148	3,456	3,444
Foreign currency exchange/translation loss (gain)	(201)	336	(794)	977
Fixed asset impairment	114	—	314	—
Cost reduction initiatives	189	—	189	—
Net loss (gain) on disposal of fixed assets	60	94	207	(601)
Other items	24	(53)	268	326
Total	$3,801	$3,190	$9,823	$8,997

Materion Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

Note E — Restructuring

In 2017, the Company completed cost reduction actions in order to align costs with commensurate business levels. These actions were accomplished through elimination of vacant positions, consolidation of roles, and staff reduction. Costs associated with these actions within the Other and Precision Coatings segments included severance associated with approximately twenty-three employees and other related costs.

In 2016, the Company initiated a plan to close the Fukuya, Japan service center, which is a part of the Performance Alloys and Composites segment. Costs associated with the plan included severance associated with approximately twelve employees and related facility exit costs.

These costs are presented in the Consolidated Statements of Income as follows:

	Third Quarter Ended		Nine Months Ended	
(Thousands)	Sept. 29, 2017	Sept. 30, 2016	Sept. 29, 2017	Sept. 30, 2016
Cost of sales	$346	$ —	$463	$ —
Selling, general, and administrative (SG&A) expense	127	—	1,259	—
Other-net	189	—	189	—
Total	$662	$ —	$1,911	$ —

Remaining severance payments related to these initiatives of $0.3 million are reflected within Other liabilities and accrued items in the Consolidated Balance Sheets. The Company does not expect to incur additional costs related to these initiatives.

Note F — Income Taxes

The Company recorded income tax expense of $1.7 million in the third quarter of 2017, an effective tax rate of 15.5% against income before income taxes, and income tax expense of $1.6 million in the third quarter of 2016, an effective tax rate of 16.7% against income before income taxes.

In the first nine months of 2017, the Company recorded income tax expense of $3.3 million, an effective tax rate of 14.4%, and income tax expense of $3.1 million in the first nine months of 2016, an effective tax rate of 14.0%.

The Company recorded discrete benefits of $0.5 million and $1.3 million, respectively, in the third quarter and first nine months of 2017. Of these amounts, $0.4 million related to the reversal of uncertain tax positions due to a lapse in the statute of limitations in the third quarter of 2017. Also, $0.1 million in the third quarter and $0.5 million in the first nine months of 2017 related to the adoption of ASU 2016-09, Improvements to Employee Share-based Payment Accounting.

The Company recorded discrete items in the first nine months of 2016, resulting in a net tax benefit of $1.0 million, primarily due to international tax planning initiatives.

Income tax expense in the third quarter and first nine months of both 2017 and 2016 was lower than the U.S Federal statutory income tax rate of 35% primarily due to the impact of percentage depletion, foreign rate differential, research and development credit, discrete benefits, and other items.

Materion Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

Note G — Earnings Per Share (EPS)
The following table sets forth the computation of basic and diluted EPS:

(Thousands, except per share amounts)	Third Quarter Ended Sept. 29, 2017	Third Quarter Ended Sept. 30, 2016	Nine Months Ended Sept. 29, 2017	Nine Months Ended Sept. 30, 2016
Numerator for basic and diluted EPS:				
Net income	$9,320	$8,045	$19,683	$18,962
Denominator:				
Denominator for basic EPS:				
Weighted-average shares outstanding	20,040	19,957	20,007	19,996
Effect of dilutive securities:				
Stock appreciation rights	149	70	148	66
Restricted stock units	94	82	95	86
Performance-based restricted stock units	128	83	111	61
Diluted potential common shares	371	235	354	213
Denominator for diluted EPS:				
Adjusted weighted-average shares outstanding	20,411	20,192	20,361	20,209
Basic EPS	$0.47	$0.40	$0.98	$0.95
Diluted EPS	$0.46	$0.40	$0.97	$0.94

Stock appreciation rights (SARs) totaling 219,292 and 982,588 for the quarters ended September 29, 2017 and September 30, 2016, respectively, and 370,917 and 993,418 for the nine months ended September 29, 2017 and September 30, 2016, respectively, were excluded from the dilution calculation as their effect would have been anti-dilutive.

Note H — Inventories
Inventories on the Consolidated Balance Sheets are summarized as follows:

(Thousands)	Sept. 29, 2017	Dec. 31, 2016
Raw materials and supplies	$44,924	$36,233
Work in process	181,553	169,327
Finished goods	37,671	38,147
Subtotal	$264,148	$243,707
Less: LIFO reserve balance	43,925	42,842
Inventories	$220,223	$200,865

The liquidation of last in, first out (LIFO) inventory layers did not impact cost of sales in the third quarter of 2017 or 2016. In the first nine months of 2017, cost of sales were increased by $0.2 million. In the first nine months of 2016, cost of sales were reduced by $3.2 million.

Note I — Pensions and Other Post-employment Benefits
The following is a summary of the net periodic benefit cost for the third quarter and first nine months of 2017 and 2016 for the domestic pension plans (which include the defined benefit pension plan and the supplemental retirement plans) and the domestic retiree medical plan.

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Materion Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

	Pension Benefits Third Quarter Ended		Other Benefits Third Quarter Ended	
(Thousands)	Sept. 29, 2017	Sept. 30, 2016	Sept. 29, 2017	Sept. 30, 2016
Components of net periodic benefit cost (benefit)				
Service cost	$2,106	$1,946	$23	$26
Interest cost	2,372	2,595	99	140
Expected return on plan assets	(3,678)	(3,488)	—	—
Amortization of prior service benefit	(42)	(115)	(374)	(374)
Amortization of net loss	1,623	1,431	—	—
Net periodic benefit cost (benefit)	$2,381	$2,369	$(252)	$(208)

	Pension Benefits Nine Months Ended		Other Benefits Nine Months Ended	
(Thousands)	Sept. 29, 2017	Sept. 30, 2016	Sept. 29, 2017	Sept. 30, 2016
Components of net periodic benefit cost (benefit)				
Service cost	$6,188	$5,838	$69	$77
Interest cost	7,098	7,785	297	422
Expected return on plan assets	(11,007)	(10,464)	—	—
Amortization of prior service benefit	(236)	(345)	(1,122)	(1,122)
Amortization of net loss	4,821	4,292	—	—
Net periodic benefit cost (benefit)	$6,864	$7,106	$(756)	$(623)

The Company made contributions to the domestic defined benefit pension plan of $8.0 million and $12.0 million in the first nine months of 2017 and 2016, respectively.

Beginning in 2017, the Company has elected to use a spot-rate approach to estimate the service and interest cost components of net periodic benefit cost for its defined benefit pension plans. The spot-rate approach applies separate discount rates for each projected benefit payment in the calculation. Historically, the Company used a weighted-average approach to determine the service and interest cost components. The change is being accounted for as a change in estimate and, accordingly, is being applied prospectively. The reduction in service and interest costs for 2017 associated with this change approximated $0.3 million and $0.8 million during the third quarter and first nine months of 2017, respectively, and is expected to total approximately $1.0 million.

Note J — Accumulated Other Comprehensive Income (Loss)

Changes in the components of accumulated other comprehensive income, including the amounts reclassified, for the third quarter and first nine months of 2017 and 2016 are as follows:

	Gains and Losses on Cash Flow Hedges					
(Thousands)	Foreign Currency	Precious Metals	Total	Pension and Post-Employment Benefits	Foreign Currency Translation	Total

Balance at June 30, 2017	$1,109	$ 93	$1,202	$ (80,842)	$ (4,282)	$(83,922)
Other comprehensive income (loss) before reclassifications	(324)	(205)	(529)	—	271	(258)
Amounts reclassified from accumulated other comprehensive income	433	(94)	339	1,345	—	1,684

Materion Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(Unaudited)

(Thousands)	Gains and Losses on Cash Flow Hedges					
	Foreign Currency	Precious Metals	Total	Pension and Post-Employment Benefits	Foreign Currency Translation	Total
Net current period other comprehensive income (loss) before tax	109	(299)	(190)	1,345	271	1,426
Deferred taxes on current period activity	41	(111)	(70)	464	—	394
Net current period other comprehensive income (loss) after tax	68	(188)	(120)	881	271	1,032
Balance at September 29, 2017	$1,177	$ (95)	$1,082	$ (79,961)	$ (4,011)	$(82,890)
Balance at July 1, 2016	$958	$ —	$958	$ (74,546)	$ (3,037)	$(76,625)
Other comprehensive income (loss) before reclassifications	(126)	—	(126)	—	467	341
Amounts reclassified from accumulated other comprehensive income	336	—	336	1,015	—	1,351
Net current period other comprehensive income (loss) before tax	210	—	210	1,015	467	1,692
Deferred taxes on current period activity	78	—	78	342	—	420
Net current period other comprehensive income (loss) after tax	132	—	132	673	467	1,272
Balance at September 30, 2016	$1,090	$ —	$1,090	$ (73,873)	$ (2,570)	$(75,353)
Balance at December 31, 2016	$1,837	$ —	$1,837	$ (82,358)	$ (5,660)	$(86,181)
Other comprehensive income (loss) before reclassifications	(1,205)	30	(1,175)	—	1,649	474
Amounts reclassified from accumulated other comprehensive income	219	(182)	37	3,655	—	3,692
Net current period other comprehensive income (loss) before tax	(986)	(152)	(1,138)	3,655	1,649	4,166
Deferred taxes on current period activity	(326)	(57)	(383)	1,258	—	875
Net current period other comprehensive income (loss) after tax	(660)	(95)	(755)	2,397	1,649	3,291
Balance at September 29, 2017	$1,177	$ (95)	$1,082	$ (79,961)	$ (4,011)	$(82,890)
Balance at December 31, 2015	$1,579	$ —	$1,579	$ (76,796)	$ (5,488)	$(80,705)
Other comprehensive income (loss) before reclassifications	(1,571)	—	(1,571)	—	2,918	1,347
Amounts reclassified from accumulated other comprehensive income	793	—	793	3,045	—	3,838
Net current period other comprehensive income (loss) before tax	(778)	—	(778)	3,045	2,918	5,185
Deferred taxes on current period activity	(289)	—	(289)	122	—	(167)
	(489)	—	(489)	2,923	2,918	5,352

Net current period other comprehensive income (loss) after tax						
Balance at September 30, 2016	$1,090	$ —	$1,090	$ (73,873)	$ (2,570)	$(75,353)

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Reclassifications from accumulated other comprehensive income of gains and losses on foreign currency cash flow hedges are recorded in Other-net in the Consolidated Statements of Income. Reclassifications from accumulated other comprehensive income of gains and losses on precious metal cash flow hedges are recorded in Cost of sales in the Consolidated Statements of Income. Refer to Note M for additional details on cash flow hedges.
Reclassifications from accumulated other comprehensive income for pension and post-employment benefits are included in the computation of the net periodic pension and post-employment benefit expense. Refer to Note I for additional details on pension and post-employment expenses.

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Note K — Stock-based Compensation Expense

Stock-based compensation expense, which includes awards settled in shares and in cash, was $1.5 million and $6.2 million in the third quarter and first nine months of 2017, respectively, compared to $2.1 million and $4.4 million in the same periods of 2016.

The Company granted 97,015 SARs to certain employees during the first nine months of 2017. The weighted-average exercise price per share and weighted-average fair value per share of the SARs granted during the nine months ended September 29, 2017 were $35.26 and $10.89, respectively. The Company estimated the fair value of the SARs using the following weighted-average assumptions in the Black-Scholes model:

Risk-free interest rate	1.92%
Dividend yield	1.1 %
Volatility	34.0%
Expected term (in years)	5.6

The Company granted 62,185 stock-settled restricted stock units (RSUs) and 32,466 cash-settled RSUs to certain employees and non-employee directors during the first nine months of 2017. The Company measures the fair value of stock-settled RSUs based on the closing market price of a share of Materion common stock on the date of the grant. The weighted-average fair value per share was $34.95 for stock-settled RSUs granted during the nine months ended September 29, 2017. Cash-settled RSUs are accounted for as liability-based compensation awards and adjusted based on the closing price of Materion's common stock over the vesting period of three years.

The Company granted stock-settled and cash-settled performance-based restricted stock units (PRSUs) to certain employees in the first nine months of 2017. The weighted-average fair value of the stock-settled PRSUs was $30.28 per share and will be expensed over the vesting period of three years. The liability for cash-settled PRSUs is re-measured at fair value each reporting period, and the adjustment to income is recorded accordingly. The final payout to the employees for all PRSUs will be based upon the Company's return on invested capital and the total return to shareholders over the vesting period relative to a peer group's performance over the same period.

At September 29, 2017, unearned compensation cost related to the unvested portion of all stock-based awards was approximately $5.3 million, and is expected to be recognized over the remaining vesting period of the respective grants.

Note L — Fair Value of Financial Instruments

The Company measures and records financial instruments at fair value. A fair value hierarchy is used for those instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's assumptions (unobservable inputs). The hierarchy consists of three levels:

Level 1 — Quoted market prices in active markets for identical assets and liabilities;

Level 2 — Inputs other than Level 1 inputs that are either directly or indirectly observable; and

Level 3 — Unobservable inputs developed using estimates and assumptions developed by the Company, which reflect those that a market participant would use.

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The following table summarizes the financial instruments measured at fair value in the Consolidated Balance Sheets as of September 29, 2017 and December 31, 2016:

(Thousands)	Total Carrying Value in the Consolidated Balance Sheets		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)	
	2017	2016	2017	2016	2017	2016	2017	2016
Financial Assets								
Deferred compensation investments	$2,149	$1,734	$2,149	$1,734	$—	$—	$ —	$ —
Foreign currency forward contracts	149	691	—	—	149	691	—	—
Precious metal swaps	45	—	—	—	45	—	—	—
Total	$2,343	$2,425	$2,149	$1,734	$194	$691	$ —	$ —
Financial Liabilities								
Deferred compensation liability	$2,149	$1,734	$2,149	$1,734	$—	$—	$ —	$ —
Foreign currency forward contracts	669	1	—	—	669	1	—	—
Precious metal swaps	197	—	—	—	197	—	—	—
Total	$3,015	$1,735	$2,149	$1,734	$866	$1	$ —	$ —

The Company uses a market approach to value the assets and liabilities for financial instruments in the table above. Outstanding contracts are valued through models that utilize market observable inputs, including both spot and forward prices, for the same underlying currencies and metals. The carrying values of the other working capital items and debt in the Consolidated Balance Sheets approximate fair values as of September 29, 2017 and December 31, 2016.

Note M — Derivative Instruments and Hedging Activity

The Company uses derivative contracts to hedge portions of its foreign currency exposures and uses derivatives to hedge a portion of its precious metal exposures. The objectives and strategies for using derivatives in these areas are as follows:

Foreign Currency. The Company sells a portion of its products to overseas customers in their local currencies, primarily the euro and yen. The Company secures foreign currency derivatives, mainly forward contracts and options, to hedge these anticipated sales transactions. The purpose of the hedge program is to protect against the reduction in the dollar value of foreign currency sales from adverse exchange rate movements. Should the dollar strengthen significantly, the decrease in the translated value of the foreign currency sales should be partially offset by gains on the hedge contracts. Depending upon the methods used, hedge contracts may limit the benefits from a weakening U.S. dollar.

The use of forward contracts locks in a firm rate and eliminates any downside risk from an adverse rate movement as well as any benefit from a favorable rate movement. The Company may from time to time choose to hedge with options or a tandem of options, known as a collar. These hedging techniques can limit or eliminate the downside risk but can allow for some or all of the benefit from a favorable rate movement to be realized. Unlike a forward contract, a premium is paid for an option; collars, which are a combination of a put and call option, may have a net premium but can be structured to be cash neutral. The Company will primarily hedge with forward contracts due to the relationship between the cash outlay and the level of risk.

The use of foreign currency derivative contracts is governed by policies approved by the Audit Committee of the Board of Directors. A team consisting of senior financial managers reviews the estimated exposure levels, as defined by budgets, forecasts, and other internal data, and determines the timing, amounts, and instruments to use to hedge that exposure within the confines of the policy. Management analyzes the effective hedged rates and the actual and projected gains and losses on the hedging transactions against the program objectives, targeted rates, and levels of risk assumed. Hedge

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contracts are typically layered in at different times for a specified exposure period in order to minimize the impact of rate movements.

Precious Metals. The Company maintains the majority of its precious metal production requirements on consignment in order to reduce its working capital investment and the exposure to metal price movements. When a precious metal product is fabricated and ready for shipment to the customer, the metal is purchased out of consignment at the current market price. The price paid by the Company forms the basis for the price charged to the customer. This methodology allows for changes in either direction in the market prices of the precious metals used by the Company to be passed through to the customer, and reduces the impact changes in prices could have on the Company's margins and operating profit. The consigned metal is owned by financial institutions that charge the Company a financing fee based upon the current value of the metal on hand.

In certain instances, a customer may want to establish the price for the precious metal at the time the sales order is placed rather than at the time of shipment. Setting the sales price at a different date than when the material would be purchased potentially creates an exposure to movements in the market price of the metal. Therefore, in these limited situations, the Company may elect to enter into a forward contract to purchase precious metal. The forward contract allows the Company to purchase metal at a fixed price on a specific future date. The price in the forward contract serves as the basis for the price to be charged to the customer. By doing so, the selling price and purchase price are matched, and the Company's price exposure is reduced.

The Company refines precious metal-containing materials for its customers and typically will purchase the refined metal from the customer at current market prices. In limited circumstances, the customer may want to fix the price to be paid at the time of the order as opposed to when the material is refined. The customer may also want to fix the price for a set period of time. The Company may then elect to enter into a hedge contract, either a forward contract or a swap, to fix the price for the estimated quantity of metal to be purchased, thereby reducing the exposure to adverse movements in the price of the metal.

In certain circumstances, the Company also refines metal from the customer and may retain a portion of the refined metal as payment. The Company may elect to enter into a forward contract to sell precious metal to reduce the Company's price exposure.

The Company may from time to time elect to purchase precious metal and hold in inventory rather than on consignment due to potential credit line limitations or other factors. These purchases are typically held for a short duration. A forward contract will be secured at the time of the purchase to fix the price to be used when the metal is transferred back to the consignment line, thereby limiting any price exposure during the time when the metal was owned.

The Company will only enter into a derivative contract if there is an underlying identified exposure. Contracts are typically held until maturity. The Company does not engage in derivative trading activities and does not use derivatives for speculative purposes. The Company only uses currency hedge contracts that are denominated in the same currency as the underlying exposure and precious metal hedge contracts denominated in the same metal as the underlying exposure.

All derivatives are recorded on the balance sheet at fair value. If the derivative is designated and effective as a cash flow hedge, changes in the fair value of the derivative are recognized in other comprehensive income (OCI) until the hedged item is recognized in earnings. The ineffective portion of a derivative’s fair value, if any, is recognized in earnings immediately. If a derivative is not a hedge, changes in the fair value are adjusted through income. The fair values of the outstanding derivatives are recorded on the balance sheet as assets (if the derivatives are in a gain position) or liabilities (if the derivatives are in a loss position). The fair values will also be classified as short-term or long-term depending upon their maturity dates.

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The following table summarizes the notional amount and the fair value of the Company’s outstanding derivatives not designated as hedging instruments and balance sheet classification as of September 29, 2017 and December 31, 2016:

(Thousands)	September 29, 2017 Notional Amount	September 29, 2017 Fair Value	December 31, 2016 Notional Amount	December 31, 2016 Fair Value
Other liabilities and accrued items				
Foreign currency forward contracts - euro	$14,402	$(11)	$ —	$ —
Total	$14,402	$(11)	$ —	$ —

These outstanding foreign currency derivatives were related to intercompany loans. Other-net included foreign currency losses relating to these derivatives of $0.5 million and $1.1 million during the third quarter and first nine months of 2017, respectively.

The following table summarizes the notional amount and the fair value of the Company’s outstanding derivatives designated as cash flow hedges and balance sheet classification as of September 29, 2017 and December 31, 2016:

(Thousands)	September 29, 2017 Notional Amount	September 29, 2017 Fair Value	December 31, 2016 Notional Amount	December 31, 2016 Fair Value
Prepaid expenses				
Foreign currency forward contracts - yen	$2,000	$59	$2,418	$239
Foreign currency forward contracts - euro	6,829	90	6,493	452
Precious metal swaps	2,148	13	—	—
Total	10,977	162	8,911	691
Other assets				
Precious metal swaps	1,932	32	—	—
Total	1,932	32	—	—
Other liabilities and accrued items				
Foreign currency forward contracts - euro	12,689	(658)	537	(1)
Precious metal swaps	7,845	(170)	—	—
Total	20,534	(828)	537	(1)
Other long-term liabilities				
Precious metal swaps	1,999	(27)	—	—
Total	$35,442	$(661)	$9,448	$690

All of these contracts were designated and effective as cash flow hedges. No ineffectiveness expense was recorded in the third quarter or first nine months of 2017 or 2016.

Changes in the fair value of outstanding cash flow hedges recorded in OCI for the first nine months of 2017 and 2016 totaled decreases of $1.2 million and $1.6 million, respectively. The Company expects to relieve substantially the entire balance in OCI as of September 29, 2017 to the Consolidated Statements of Income within the next 18-month period. Refer to Note J for additional OCI details.

Note N — Contingencies

Legal Proceedings. For information regarding legal proceedings relating to Chronic Beryllium Disease Claims, refer to Note Q ("Contingencies and Commitments") in the Company's 2016 Annual Report on Form 10-K.

Other Litigation. The Company is party to several pending legal proceedings and claims arising in the normal course of business. The Company records a liability when it is both probable that a liability has been incurred and the amount of the loss can be

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reasonably estimated. In the event the Company determines that a loss is not probable, but is reasonably possible, and it becomes possible to develop what the Company believes to be a reasonable range of possible loss, then the Company will include disclosure related to such matters. To the extent there is a reasonable possibility that the losses could exceed any amounts accrued, the Company will adjust the accrual in the period the determination is made, disclose an estimate of the additional loss or range of loss, indicate that the estimate is immaterial with respect to its financial statements as a whole or, if the amount of such adjustment cannot be reasonably estimated, disclose that an estimate cannot be made.

Environmental Proceedings. The Company has an active environmental compliance program and records reserves for the probable cost of identified environmental remediation projects. The reserves are established based upon analyses conducted by the Company's engineers and outside consultants and are adjusted from time to time based upon ongoing studies, the difference between actual and estimated costs, and other factors. The reserves may also be affected by rulings and negotiations with regulatory agencies. The undiscounted reserve balance was $6.1 million at September 29, 2017 and $6.0 million at December 31, 2016. Environmental projects tend to be long-term, and the final actual remediation costs may differ from the amounts currently recorded.

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

OVERVIEW

We are an integrated producer of high-performance advanced engineered materials used in a variety of electrical, electronic, thermal, and structural applications. Our products are sold into numerous end markets, including consumer electronics, industrial components, defense, medical, automotive electronics, telecommunications infrastructure, energy, commercial aerospace, science, services, and appliance.

RESULTS OF OPERATIONS

Third Quarter

	Third Quarter Ended			
(Thousands, except per share data)	Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$294,268	$249,619	$44,649	18 %
Value-added sales	171,382	157,001	14,381	9 %
Gross margin	55,203	50,755	4,448	9 %
Gross margin as a % of value-added sales	32 %	32 %	N/A	N/A
Selling, general, and administrative (SG&A) expense	36,415	34,177	2,238	7 %
SG&A expense as a % of value-added sales	21 %	22 %	N/A	N/A
Research and development (R&D) expense	3,429	3,237	192	6 %
R&D expense as a % of value-added sales	2 %	2 %	N/A	N/A
Other—net	3,801	3,190	611	19 %
Operating profit	11,558	10,151	1,407	14 %
Interest expense—net	533	490	43	9 %
Income before income taxes	11,025	9,661	1,364	14 %
Income tax expense	1,705	1,616	89	6 %
Net income	$9,320	$8,045	$1,275	16 %
Diluted earnings per share	$0.46	$0.40	$0.06	15 %

N/A = Not Applicable

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Net sales of $294.3 million in the third quarter of 2017 were $44.7 million higher than the $249.6 million recorded in the third quarter of 2016. Net sales of $38.6 million during the third quarter of 2017 were attributable to the high performance target materials business of the Heraeus Group (HTB). Changes in precious metal and copper prices negatively impacted net sales in the third quarter of 2017 by approximately $2.4 million when compared to the third quarter of 2016.

Value-added sales is a non-GAAP financial measure that removes the impact of pass-through metal costs and allows for analysis without the distortion of the movement or volatility in metal prices. Internally, we manage our business on this basis, and a reconciliation of net sales, the most directly comparable GAAP financial measure, to value-added sales is included herein. Value-added sales of $171.4 million in the third quarter of 2017 increased $14.4 million, or 9% compared to the third quarter of 2016. Value-added sales from the HTB acquisition totaled $11.4 million in the third quarter of 2017. Value-added sales to the consumer electronics end market, which accounted for 31% of our total value-added sales during the third quarter of 2017, increased $2.9 million from the prior-year period. Also, value-added sales in the industrial components end market increased $4.2 million from the prior-year period. These increases were offset by weakness in the medical end market, which lowered value-added sales by approximately $6.1 million.

Gross margin in the third quarter of 2017 was $55.2 million, or $4.4 million higher than the $50.8 million gross margin recorded during the third quarter of 2016. Gross margin expressed as a percentage of value-added sales was 32% in the third quarter of both 2017 and 2016.

SG&A expense was $36.4 million in the third quarter of 2017, or $2.2 million higher than the $34.2 million recorded in the third quarter of 2016. The increase is attributable to $2.1 million of HTB expenses.

R&D expense consists primarily of direct personnel costs for pre-production evaluation and testing of new products, prototypes, and applications. R&D expense was flat as a percentage of value-added sales at approximately 2% in the third quarter of both 2017 and 2016.

Other-net was $3.8 million of expense in the third quarter of 2017, or a $0.6 million increase from the third quarter of 2016. Other-net in the third quarter of 2017 included higher metal consignment fees of $0.8 million, as compared to the third quarter of 2016. Refer to Note D to the Consolidated Financial Statements for details of the major components within Other-net.

Interest expense-net was $0.5 million in the third quarter of both 2017 and 2016.

Income tax expense for the third quarter of 2017 was $1.7 million, compared to $1.6 million in the third quarter of 2016. The effective tax rate for the third quarter of 2017 was 15.5% compared to 16.7% in the prior-year period. The effects of percentage depletion, the foreign rate differential, the research and development credit, discrete benefits, and other items were the primary factors for the difference between the effective and statutory rates in the third quarter of 2017 and 2016. Refer to Note F to the Consolidated Financial Statements for further details on income taxes.

Nine Months

(Thousands, except per share data)	Nine Months Ended Sept. 29, 2017		Nine Months Ended Sept. 30, 2016		$ Change	% Change	
Net sales	$830,779		$734,906		$95,873	13	%
Value-added sales	496,462		454,793		41,669	9	%
Gross margin	152,756		139,418		13,338	10	%
Gross margin as a % of value-added sales	31	%	31	%	N/A	N/A	
SG&A expense	108,118		97,101		11,017	11	%
SG&A expense as a % of value-added sales	22	%	21	%	N/A	N/A	
R&D expense	10,103		9,860		243	2	%
R&D expense as a % of value-added sales	2	%	2	%	N/A	N/A	
Other—net	9,823		8,997		826	9	%
Operating profit	24,712		23,460		1,252	5	%
Interest expense—net	1,721		1,417		304	21	%
Income before income taxes	22,991		22,043		948	4	%
Income tax expense	3,308		3,081		227	7	%
Net income	$19,683		$18,962		$721	4	%
Diluted earnings per share	$0.97		$0.94		$0.03	3	%

N/A = Not Applicable

Net sales of $830.8 million in the first nine months of 2017 were $95.9 million higher than the $734.9 million recorded in the first nine months of 2016. Changes in precious metal and copper prices favorably impacted net sales in the first nine months of 2017 by approximately $6.0 million when compared to the first nine months of 2016. Net sales in the Performance Alloys and Composites segment increased $18.5 million due to higher sales volume, including shipments of raw material beryllium hydroxide. Net sales of $77.9 million during the first nine months of 2017 were attributable to the HTB acquisition. Excluding the HTB acquisition, net sales in the Advanced Materials segment increased $22.7 million due to higher sales volume in the consumer electronics and industrial components end markets. These favorable impacts were offset by lower sales volume in the medical end market in the Precision Coatings segment.

Value-added sales of $496.5 million in the first nine months of 2017 increased $41.7 million, or 9% compared to the first nine months of 2016. Value-added sales from the HTB acquisition totaled approximately $24.9 million in the first nine months of 2017. Value-added sales to the consumer electronics end market, which accounted for 30% of our total value-added sales during the first nine months of 2017, increased $9.7 million from the prior-year period. Also, value-added sales in the industrial components end market increased $10.4 million from the prior-year period.

Gross margin in the first nine months of 2017 was $152.8 million, or $13.4 million higher than the $139.4 million gross margin recorded during the first nine months of 2016. Gross margin was 31% of value-added sales in the first nine months of both 2017 and 2016.

SG&A expense was $108.1 million in the first nine months of 2017, or $11.0 million higher than the $97.1 million recorded in the first nine months of 2016. The increase related to higher incentive compensation and stock-based compensation expense of $8.1 million, which included $1.4 million due to accelerated stock compensation expense associated with the transition of the Company's CEO. Additionally, the increase is attributable to HTB expenses of $4.2 million.

R&D expense was flat as a percentage of value-added sales at approximately 2% in the first nine months of both 2017 and 2016.

Other-net was $9.8 million and $9.0 million of expense in the first nine months of 2017 and 2016, respectively. Other-net in the first nine months of 2017 included higher metal consignment fees of $1.3 million, as compared to the first nine months of 2016. Refer to Note D to the Consolidated Financial Statements for details of the major components within Other-net.

Interest expense-net was $1.7 million in the first nine months of 2017, or a $0.3 million increase from $1.4 million in the first nine months of 2016 due to higher average debt outstanding.

Income tax expense for the first nine months of 2017 was $3.3 million, compared to $3.1 million in the first nine months of 2016. The effective tax rate for the first nine months of 2017 was 14.4% compared to an effective tax rate of 14.0% in the prior-year period. The effects of percentage depletion, the foreign rate differential, the research and development credit, discrete benefits, and other items were the primary factors for the difference between the effective and statutory rates in the first nine months of 2017 and 2016. Refer to Note F to the Consolidated Financial Statements for further details on income taxes.

Value-Added Sales - Reconciliation of Non-GAAP Financial Measure

A reconciliation of net sales to value-added sales, a non-GAAP financial measure, for each reportable segment and for the total Company for the first nine months of 2017 and 2016 is as follows:

	Third Quarter Ended		Nine Months Ended	
(Thousands)	Sept. 29, 2017	Sept. 30, 2016	Sept. 29, 2017	Sept. 30, 2016
Net sales				
Performance Alloys and Composites	$109,393	$103,699	$310,487	$292,024
Advanced Materials	157,770	107,250	429,550	328,927
Precision Coatings	27,105	38,670	90,742	113,955
Other	—	—	—	—
Total	$294,268	$249,619	$830,779	$734,906
Less: pass-through metal costs				
Performance Alloys and Composites	$18,756	$16,452	$47,953	$43,225
Advanced Materials	97,379	61,290	259,830	193,908
Precision Coatings	5,209	12,867	22,932	38,407
Other	1,542	2,009	3,602	4,573
Total	$122,886	$92,618	$334,317	$280,113
Value-added sales				
Performance Alloys and Composites	$90,637	$87,247	$262,534	$248,799
Advanced Materials	60,391	45,960	169,720	135,019
Precision Coatings	21,896	25,803	67,810	75,548
Other	(1,542)	(2,009)	(3,602)	(4,573)
Total	$171,382	$157,001	$496,462	$454,793

The cost of gold, silver, platinum, palladium, and copper can be quite volatile. Our pricing policy is to directly pass the cost of these metals on to the customer in order to mitigate the impact of metal price volatility on our results from operations. Trends and comparisons of net sales are affected by movements in the market prices of these metals, but changes in net sales due to metal price movements may not have a proportionate impact on our profitability.

Internally, management reviews net sales on a value-added basis. Value-added sales is a non-GAAP financial measure that deducts the value of the pass-through metal costs from net sales. Value-added sales allow management to assess the impact of differences in net sales between periods, segments, or markets, and analyze the resulting margins and profitability without the distortion of movements in pass-through metal costs. The dollar amount of gross margin and operating profit is not affected by the value-added sales calculation. We sell other metals and materials that are not considered direct pass-throughs, and these costs are not deducted from net sales when calculating value-added sales.

Non-GAAP financial measures, such as value-added sales, have inherent limitations and should not be considered in isolation, or as a substitute for analyses of results as reported under GAAP.

Our net sales are also affected by changes in the use of customer-supplied metal. When we manufacture a precious metal product, the customer may purchase metal from us or may elect to provide its own metal, in which case we process the metal on a toll basis and the metal value does not flow through net sales or cost of sales. In either case, we generally earn our margin based upon our fabrication efforts. The relationship of this margin to net sales can change depending upon whether or not the product was made from our metal or the customer’s metal. The use of value-added sales removes the potential distortion in the comparison of net sales caused by changes in the level of customer-supplied metal.

By presenting information on net sales and value-added sales, it is our intention to allow users of our financial statements to review our net sales with and without the impact of the pass-through metals.

Segment Results

The Company consists of four reportable segments: Performance Alloys and Composites, Advanced Materials, Precision Coatings, and Other. The Other reportable segment includes unallocated corporate costs.

Performance Alloys and Composites

Third Quarter

	Third Quarter Ended			
(Thousands)	Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$109,393	$103,699	$5,694	5 %
Value-added sales	90,637	87,247	3,390	4 %
Operating profit	6,786	4,357	2,429	56 %

Net sales from the Performance Alloys and Composites segment of $109.4 million in the third quarter of 2017 were 5% higher than net sales of $103.7 million in the third quarter of 2016 primarily due to higher sales volume related to the industrial components, consumer electronics, and automotive electronics end markets. In addition, the impact of higher pass-through metal prices favorably impacted net sales by approximately $1.8 million.

Value-added sales of $90.6 million in the third quarter of 2017 were 4% higher than value-added sales of $87.2 million in the third quarter of 2016. The increase in value-added sales was driven by stronger demand in the aforementioned end markets of industrial components, consumer electronics, and automotive electronics, partially offset by a $3.1 million reduction in raw material beryllium hydroxide sales.

Performance Alloys and Composites generated operating profit of $6.8 million in the third quarter of 2017 compared to $4.4 million in the third quarter of 2016. The increase in operating profit was primarily due to higher sales volume, favorable product mix, and productivity improvements.

Nine Months

	Nine Months Ended			
(Thousands)	Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$310,487	$292,024	$18,463	6 %
Value-added sales	262,534	248,799	13,735	6 %
Operating profit	12,523	6,103	6,420	105 %

Net sales from the Performance Alloys and Composites segment of $310.5 million in the first nine months of 2017 were 6% higher than net sales of $292.0 million in the first nine months of 2016 primarily due to increased demand in the industrial components and consumer electronics end markets. The impact of higher pass-through metal prices favorably impacted net sales by approximately $5.9 million.

Value-added sales of $262.5 million in the first nine months of 2017 were 6% higher than value-added sales of $248.8 million in the first nine months of 2016. Stronger demand in the consumer electronics and industrial components end markets increased value-added sales by $11.4 million compared to the first nine months of 2016. Also, the increase in value-added sales was driven by higher raw material sales of beryllium hydroxide of $2.0 million.

Performance Alloys and Composites generated operating profit of $12.5 million in the first nine months of 2017 compared to $6.1 million in the first nine months of 2016. The increase in operating profit was primarily due to higher sales volume, favorable product mix, and productivity improvements.

Advanced Materials

Third Quarter

	Third Quarter Ended			
	Sept. 29,	Sept. 30,	$	%
(Thousands)	2017	2016	Change	Change
Net sales	$157,770	$107,250	50,520	47 %
Value-added sales	60,391	45,960	14,431	31 %
Operating profit	9,756	8,245	1,511	18 %

Net sales from the Advanced Materials segment of $157.8 million in the third quarter of 2017 were 47% higher than net sales of $107.3 million in the third quarter of 2016 due to higher sales volume. Net sales of $38.6 million during the third quarter of 2017 were attributable to our HTB acquisition. Also, net sales increased due to higher sales volume offset by the impact of lower pass-through metal prices of $4.7 million.

Value-added sales of $60.4 million in the third quarter of 2017 were 31% higher than value-added sales of $46.0 million in the third quarter of 2016. This increase included value-added sales of $11.4 million attributable to our HTB acquisition. Also, the increase in value-added sales was driven by higher value-added sales to the consumer electronics end market of $2.2 million due primarily to higher demand.

The Advanced Materials segment generated operating profit of $9.8 million in the third quarter of 2017 compared to $8.3 million in the third quarter of 2016. Operating profit in the third quarter of 2017 was favorably impacted by higher sales volume.

Nine Months

	Nine Months Ended			
	Sept. 29,	Sept. 30,	$	%
(Thousands)	2017	2016	Change	Change
Net sales	$429,550	$328,927	100,623	31 %
Value-added sales	169,720	135,019	34,701	26 %
Operating profit	24,873	20,748	4,125	20 %

Net sales from the Advanced Materials segment of $429.6 million in the first nine months of 2017 were 31% higher than net sales of $328.9 million in the first nine months of 2016. Net sales of $77.9 million during the first nine months of 2017 were attributable to the HTB acquisition. Also, net sales increased due to a combination of new product sales growth and demand in the consumer electronics and defense end markets.

Value-added sales of $169.7 million in the first nine months of 2017 were 26% higher than value-added sales of $135.0 million in the first nine months of 2016. This increase included value-added sales of $24.9 million attributable to our HTB acquisition. The increase in value-added sales was also driven by higher value-added sales to the consumer electronics end market. Value-added sales to the consumer electronics end market, which represents approximately 49% of total segment value-added sales, increased $7.2 million due primarily to higher demand, excluding the HTB acquisition.

The Advanced Materials segment generated operating profit of $24.9 million in the first nine months of 2017 compared to $20.7 million in the first nine months of 2016. As a percentage of value-added sales, operating profit was 15% in the first nine months of both 2017 and 2016. Operating profit in the first nine months of 2017 was favorably impacted by higher sales volume.

Precision Coatings

Third Quarter

(Thousands)	Third Quarter Ended			
	Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$27,105	$38,670	(11,565)	(30)%
Value-added sales	21,896	25,803	(3,907)	(15)%
Operating profit	1,613	3,432	(1,819)	(53)%

Net sales from the Precision Coatings segment of $27.1 million in the third quarter of 2017 were 30% lower than net sales of $38.7 million in the third quarter of 2016 primarily due to lower sales volume.

Value-added sales of $21.9 million in the third quarter of 2017 were 15% lower than value-added sales of $25.8 million in the third quarter of 2016. The defense and industrial components end markets increased $1.3 million primarily due to end market demand. This increase was more than offset by a decrease of $4.9 million in the medical end market due to lower volume in the blood glucose test strip segment of the medical end market.

The Precision Coatings segment generated operating profit of $1.6 million in the third quarter of 2017, compared to an operating profit of $3.4 million in the third quarter of 2016. The decrease in operating profit was driven by lower sales volume and $0.4 million of cost reduction initiatives, primarily severance, associated with reducing headcount in Asia and North America.

Nine Months

(Thousands)	Nine Months Ended			
	Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$90,742	$113,955	(23,213)	(20)%
Value-added sales	67,810	75,548	(7,738)	(10)%
Operating profit	6,145	9,803	(3,658)	(37)%

Net sales from the Precision Coatings segment of $90.7 million in the first nine months of 2017 were 20% lower than net sales of $114.0 million in the first nine months of 2016 primarily due to lower sales volume.

Value-added sales of $67.8 million in the first nine months of 2017 were 10% lower than value-added sales of $75.5 million in the first nine months of 2016. The defense and industrial components end markets increased $3.6 million primarily due to stronger end market demand. This increase was more than offset by a decrease of $8.4 million in the medical end market due to lower volume in the blood glucose test strip segment of the medical end market.

The Precision Coatings segment generated operating profit of $6.1 million in the first nine months of 2017 compared to $9.8 million in the first nine months of 2016. The decrease in operating profit in the first nine months of 2017 versus the comparable period of 2016 was due to lower sales volume, cost reduction initiatives of $0.4 million, and the absence of a gain on the sale of equipment of $0.8 million realized during the first nine months of 2016.

Other

Third Quarter

(Thousands)	Third Quarter Ended Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$—	$ —	—	— %
Value-added sales	(1,542)	(2,009)	467	(23)%
Operating loss	(6,597)	(5,883)	(714)	12 %

The Other reportable segment in total includes unallocated corporate costs.

Corporate costs of $6.6 million in the third quarter of 2017 increased $0.7 million as compared to $5.9 million in the third quarter of 2016. Corporate costs were 4% of total Company value-added sales in the third quarter of both 2017 and 2016. The increase in corporate costs was primarily due to higher incentive compensation expense associated with value-added sales and profit growth.

Nine Months

(Thousands)	Nine Months Ended Sept. 29, 2017	Sept. 30, 2016	$ Change	% Change
Net sales	$—	$ —	—	— %
Value-added sales	(3,602)	(4,573)	971	(21)%
Operating loss	(18,829)	(13,194)	(5,635)	43 %

Corporate costs of $18.8 million in the first nine months of 2017 increased $5.6 million as compared to $13.2 million in the first nine months of 2016. As a percent of total Company value-added sales, corporate costs increased to 4% in the first nine months of 2017 from 3% in the prior-year. The increase in corporate costs was due to higher incentive compensation and stock-based compensation expense of $5.5 million, which included $1.4 million due to accelerated stock compensation expense associated with the transition of the Company's CEO.

FINANCIAL POSITION

Cash Flow

A summary of cash flows provided by (used in) operating, investing, and financing activities is as follows:

(Thousands)	Nine Months Ended Sept. 29, 2017	Sept. 30, 2016	$ Change
Net cash provided by operating activities	$35,497	$27,222	$8,275
Net cash used in investing activities	(34,830)	(27,620)	(7,210)
Net cash used in financing activities	(10,938)	(8,556)	(2,382)
Effects of exchange rate changes	1,293	524	769
Net change in cash and cash equivalents	$(8,978)	$(8,430)	$(548)

Net cash provided by operating activities totaled $35.5 million in the first nine months of 2017 versus $27.2 million in the comparable prior-year period. Working capital requirements used cash of $13.5 million during the first nine months of 2017 compared to a use of $18.7 million in the first nine months of 2016. Cash flows used for accounts receivable were $1.8 million higher than the prior year-period due to the HTB acquisition. Our three-month trailing days sales outstanding (DSO) was approximately 40 days at September 29, 2017 versus 41 days at December 31, 2016. Cash flows used for inventory increased $13.2 million primarily within the Performance Alloys and Composites and Advanced Materials segments to respond to anticipated orders and demand. Cash flows from accounts payable and accrued expenses provided cash of approximately $18.0 million compared to a use of $2.2 million in the prior-year period primarily due to a higher accounts payable balance due to the timing of payments and the HTB acquisition.

Net cash used in investing activities was $34.8 million in the first nine months of 2017 compared to $27.6 million in the prior-year period, reflecting a $16.5 million payment for the HTB acquisition offset by lower payments for property, plant, and equipment and mine development of $10.6 million.
Capital expenditures are made primarily for new product development, replacing and upgrading equipment, infrastructure investments, and implementing information technology initiatives. For the full year 2017, the Company expects payments for property, plant, and equipment to be less than $30.0 million and mine development expenditures to be less than $3.0 million.
Net cash used in financing activities totaled $10.9 million in the first nine months of 2017 versus $8.6 million in the comparable prior-year period primarily due to a higher amount of common shares withheld for taxes in 2017 compared to 2016.
Liquidity
We believe cash flow from operations plus the available borrowing capacity and our current cash balance are adequate to support operating requirements, capital expenditures, projected pension plan contributions, the current dividend and share repurchase programs, environmental remediation projects, and strategic acquisitions. At September 29, 2017, cash and cash equivalents held by our foreign operations totaled $11.5 million. We do not expect restrictions on repatriation of cash held outside of the United States to have a material effect on our overall liquidity, financial condition, or results of operations for the foreseeable future.
A summary of key data relative to our liquidity, including outstanding debt, cash, available borrowing capacity, and debt-to-debt-plus-equity ratio, as of September 29, 2017 and December 31, 2016 is as follows:

(Thousands)	September 29, 2017	December 31, 2016
Total outstanding debt	$4,007	$ 4,615
Cash	22,486	31,464
Net debt (cash)	(18,479)	(26,849)
Available borrowing capacity	$266,405	$ 238,886
Debt-to-debt-plus-equity ratio	1 %	1 %

Net debt (cash) is a non-GAAP financial measure reflecting the Company's current liquidity position. It is also a measure our management uses to assess financing and other decisions. We believe that based on our typical cash flow generated from operations, we can support a higher leverage ratio in future periods. Non-GAAP financial measures, such as net debt (cash), have inherent limitations and should not be considered in isolation, or as a substitute for GAAP financial measures.
Total outstanding debt decreased $0.6 million compared to December 31, 2016.
The available borrowing capacity in the table above represents the additional amounts that could be borrowed under our revolving credit facility and other secured lines existing as of the end of each period depicted. The applicable debt covenants have been taken into account when determining the available borrowing capacity, including the covenant that restricts the borrowing capacity to a multiple of the twelve-month trailing earnings before interest, income taxes, depreciation and amortization, and other adjustments. The main cause for the increase in the available borrowing capacity at September 29, 2017 as compared to December 31, 2016 was due to increased earnings before interest, income taxes, depreciation and amortization on a trailing 12-month basis.
In 2015, we entered into an amendment to our $375.0 million revolving credit agreement (Credit Agreement). The amendment extends the maturity date of the Credit Agreement from 2018 to 2020 and provides more favorable pricing under certain circumstances. In addition, the amendment provides the Company and its subsidiaries with additional capacity to enter into facilities for the consignment, borrowing, or leasing of precious metals and copper, and provides enhanced flexibility to finance acquisitions and other strategic initiatives. The Credit Agreement is secured by substantially all of the assets of the Company and its direct subsidiaries, with the exception of non-mining real property and certain other assets. The Credit Agreement allows us to borrow money at a premium over LIBOR or the prime rate and at varying maturities. The premium resets quarterly according to the terms and conditions available under the Credit Agreement.

The Credit Agreement includes restrictive covenants including incurring restrictions on additional indebtedness, acquisitions, dividends, and stock repurchases. In addition, the Credit Agreement includes covenants subject to a maximum leverage ratio and a minimum fixed charge coverage ratio. We were in compliance with all of our debt covenants as of September 29, 2017 and December 31, 2016. Cash on hand does not affect the covenants or the borrowing capacity under our debt agreements.

Portions of our business utilize off-balance sheet consignment arrangements to finance metal requirements. Expansion of business volumes and/or higher metal prices can put pressure on the consignment line limitations from time to time. As a result, we have negotiated increases in the available capacity under existing lines, added additional lines, and extended the maturity dates of existing lines in recent years. The available and unused capacity under the metal financing lines totaled approximately $149.3 million as of September 29, 2017. The availability is determined by Board approved levels and actual line capacity.

In January 2014, our Board of Directors approved a plan to repurchase up to $50.0 million of our common stock. The timing of the share repurchases will depend on several factors, including market and business conditions, our cash flow, debt levels, and other investment opportunities. There is no minimum quantity requirement to repurchase our common stock for a given year, and the repurchases may be discontinued at any time. In the first nine months of 2017, we repurchased 32,409 shares at a cost of $1.1 million. We did not repurchase any shares in the third quarter of 2017. Since the approval of the repurchase plan, we have purchased 1,082,264 shares at a total cost of $34.3 million.

In the third quarter and first nine months of 2017, we paid cash dividends of $2.0 million and $5.9 million, respectively, on our common stock. We intend to pay a quarterly dividend on an ongoing basis, subject to a determination that the dividend remains in the best interest of our shareholders.

OFF-BALANCE SHEET ARRANGEMENTS AND CONTRACTUAL OBLIGATIONS

We maintain the majority of the precious metals and copper we use in production on a consignment basis in order to reduce our exposure to metal price movements and to reduce our working capital investment. The notional value of off-balance sheet precious metals and copper was $300.7 million as of September 29, 2017, versus $194.8 million as of December 31, 2016. We were in compliance with all of the covenants contained in the consignment agreements as of September 29, 2017 and December 31, 2016. For additional information on our contractual obligations, refer to our Form 10-K for the year ended December 31, 2016.

CRITICAL ACCOUNTING POLICIES

For additional information regarding critical accounting policies, please refer to our Form 10-K for the year ended December 31, 2016. There have been no material changes to our critical accounting policies subsequent to the issuance of our Form 10-K.

Forward-looking Statements

Portions of the narrative set forth in this document that are not statements of historical or current facts are forward-looking statements. Our actual future performance may materially differ from that contemplated by the forward-looking statements as a result of a variety of factors. These factors include, in addition to those mentioned elsewhere herein:

Actual net sales, operating rates, and margins for 2017;

Our ability to effectively integrate the HTB acquisition;

The global economy;

The impact of any U.S. Federal Government shutdowns and sequestrations;

The condition of the markets which we serve, whether defined geographically or by segment, with the major market segments being: consumer electronics, industrial components, defense, medical, automotive electronics, telecommunications infrastructure, energy, commercial aerospace, and science;

Changes in product mix and the financial condition of customers;

Our success in developing and introducing new products and new product ramp-up rates;

Our success in passing through the costs of raw materials to customers or otherwise mitigating fluctuating prices for those materials, including the impact of fluctuating prices on inventory values;

Our success in identifying acquisition candidates and in acquiring and integrating such businesses;

The impact of the results of acquisitions on our ability to fully achieve the strategic and financial objectives related to these acquisitions;

Our success in implementing our strategic plans and the timely and successful completion and start-up of any capital projects;

The availability of adequate lines of credit and the associated interest rates;

Other financial factors, including the cost and availability of raw materials (both base and precious metals), physical inventory valuations, metal financing fees, tax rates, exchange rates, pension costs and required cash contributions and other employee benefit costs, energy costs, regulatory compliance costs, the cost and availability of insurance, and the impact of the Company’s stock price on the cost of incentive compensation plans;

The uncertainties related to the impact of war, terrorist activities, and acts of God;

Changes in government regulatory requirements and the enactment of new legislation that impacts our obligations and operations;

The conclusion of pending litigation matters in accordance with our expectation that there will be no material adverse effects;

The success of the realignment of our businesses;

Our ability to strengthen our internal control over financial reporting and disclosure controls and procedures; and

- The risk factors set forth in Part 1, Item 1A of our Form 10-K for the year ended December 31, 2016.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

For information regarding market risks, refer to Item 7A. Quantitative and Qualitative Disclosures About Market Risk in our Annual Report on Form 10-K for the year ended December 31, 2016. There have been no material changes in our market risks since the inclusion of this discussion in our Annual Report on Form 10-K.

Item 4. Controls and Procedures

a) Evaluation of Disclosure Controls and Procedures

The Company carried out an evaluation under the supervision and with participation of the Company's management, including the chief executive officer and chief financial officer, of the effectiveness of the design and operation of disclosure controls and procedures as of September 29, 2017 pursuant to Rule 13a-15(b) and 15d-15(b) under the Securities Exchange Act of 1934, as

amended (Exchange Act). Based on that evaluation, management, including the chief executive officer and chief financial officer, concluded that disclosure controls and procedures are effective as of September 29, 2017.

b)Changes in Internal Control over Financial Reporting

There have been no changes in the Company's internal control over financial reporting that occurred during the quarter ended September 29, 2017 that have 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

Our subsidiaries and our holding company are subject, from time to time, to a variety of civil and administrative proceedings arising out of our normal operations, including, without limitation, product liability claims, health, safety, and environmental claims, and employment-related actions. Among such proceedings are cases alleging that plaintiffs have contracted, or have been placed at risk of contracting, beryllium sensitization or chronic beryllium disease or other lung conditions as a result of exposure to beryllium (beryllium cases). The plaintiffs in beryllium cases seek recovery under negligence and various other legal theories and demand compensatory and often punitive damages, in many cases of an unspecified sum. Spouses of some plaintiffs claim loss of consortium.
The information presented in the Legal Proceedings section of Note N ("Contingencies") of the Notes to Consolidated Financial Statements (Unaudited) is incorporated herein by reference.
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds
The following table presents information with respect to repurchases of common stock made by us during the three months ended September 29, 2017.

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)
July 1 through August 4, 2017	895	$ 38.42	—	$ 15,703,744
August 5 through September 1, 2017	401	38.16	—	15,703,744
September 1 through September 29, 2017	1,062	42.88	—	15,703,744
Total	2,358	$ 40.38	—	$ 15,703,744

(1) Includes 895, 401, and 1,062 shares surrendered to the Company in July, August, and September, respectively, by employees to satisfy tax withholding obligations on equity awards issued under the Company's

stock incentive plan.

(2) On January 14, 2014, we announced that our Board of Directors had authorized the repurchase of up to $50.0 million of our common stock. We did not repurchase any shares under this program during the third quarter of 2017. As of September 29, 2017, $15.7 million may still be purchased under the program.

Item 4. Mine Safety Disclosures

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95 to this quarterly report on Form 10-Q.

Item 6. Exhibits

31.1	Certification of Chief Executive Officer required by Rule 13a-14(a) or 15d-14(a)*
31.2	Certification of Chief Financial Officer required by Rule 13a-14(a) or 15d-14(a)*
32	Certifications of Chief Executive Officer and Chief Financial Officer required by 18 U.S.C. Section 1350*
95	Mine Safety Disclosure Pursuant to Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act for the period ended September 29, 2017*
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

*Submitted electronically herewith.

SIGNATURES

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.

MATERION CORPORATION

Dated: October 26, 2017

/s/ Joseph P. Kelley
Joseph P. Kelley
Vice President, Finance and Chief Financial Officer
(Principal Financial and Accounting Officer)