UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2017

OR

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

For the transition period from ______ to _____

Commission File Number 1-12981

AMETEK, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

1100 Cassatt Road Berwyn, Pennsylvania (Address of principal executive offices)

Registrant's telephone number, including area code: (610) 647-2121

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 \boxtimes No \square

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 \boxtimes No \square

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See 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	X	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. \Box

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

14-1682544 (I.R.S. Employer Identification No.)

> 19312-1177 (Zip Code)

The number of shares of the registrant's common stock outstanding as of the latest practicable date was: Common Stock, \$0.01 Par Value, outstanding at July 25, 2017 was 230,795,385 shares.

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

AMETEK, Inc. Consolidated Statement of Income (In thousands, except per share amounts) (Unaudited)

		Three Months Ended June 30,				onths Ended ane 30,	
	2017	2016	2017	2016			
Net sales	\$1,064,604	\$977,706	\$2,072,286	\$1,922,104			
Operating expenses:							
Cost of sales	699,739	639,711	1,364,674	1,263,392			
Selling, general and administrative	132,480	118,959	254,929	231,153			
Total operating expenses	832,219	758,670	1,619,603	1,494,545			
Operating income	232,385	219,036	452,683	427,559			
Other expenses:							
Interest expense	(24,552)	(23,706)	(49,068)	(47,107)			
Other, net	(4,478)	(4,769)	(8,838)	(6,849)			
Income before income taxes	203,355	190,561	394,777	373,603			
Provision for income taxes	52,874	52,368	105,370	101,240			
Net income	<u>\$ 150,481</u>	\$138,193	\$ 289,407	\$ 272,363			
Basic earnings per share	<u>\$ 0.65</u>	\$ 0.59	\$ 1.26	\$ 1.16			
Diluted earnings per share	\$ 0.65	\$ 0.59	\$ 1.25	\$ 1.16			
Weighted average common shares outstanding:							
Basic shares	230,158	233,285	229,853	234,134			
Diluted shares	231,588	234,790	231,296	235,503			
Dividends declared and paid per share	\$ 0.09	\$ 0.09	\$ 0.18	\$ 0.18			

See accompanying notes.

AMETEK, Inc. Consolidated Statement of Comprehensive Income (In thousands) (Unaudited)

		Three Months Ended June 30,		hs Ended e 30,
	2017	2016	2017	2016
Total comprehensive income	\$188,319	\$85,409	\$337,498	\$254,685

See accompanying notes.

AMETEK, Inc. Consolidated Balance Sheet (In thousands)

	June 30, 2017 (Unaudited)	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 516,483	\$ 717,259
Receivables, net	642,263	592,326
Inventories, net	541,213	492,104
Deferred income taxes		50,004
Other current assets	89,314	76,497
Total current assets	1,789,273	1,928,190
Property, plant and equipment, net	492,507	473,230
Goodwill	3,117,129	2,818,950
Other intangibles, net	1,981,062	1,734,021
Investments and other assets	155,042	146,283
Total assets	\$ 7,535,013	\$ 7,100,674
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings and current portion of long-term debt, net	\$ 272,550	\$ 278,921
Accounts payable	405,937	369,537
Income taxes payable	41,361	29,913
Accrued liabilities	275,298	246,070
Total current liabilities	995,146	924,441
Long-term debt, net	2,128,838	2,062,644
Deferred income taxes	596,735	621,776
Other long-term liabilities	222,098	235,300
Total liabilities	3,942,817	3,844,161
Stockholders' equity:		
Common stock	2,626	2,615
Capital in excess of par value	637,487	604,143
Retained earnings	4,651,790	4,403,683
Accumulated other comprehensive loss	(494,298)	(542,389)
Treasury stock	(1,205,409)	(1,211,539)
Total stockholders' equity	3,592,196	3,256,513
Total liabilities and stockholders' equity	<u>\$ 7,535,013</u>	\$ 7,100,674

See accompanying notes.

AMETEK, Inc. Condensed Consolidated Statement of Cash Flows (In thousands) (Unaudited)

	Six Mont June	
	2017	2016
Cash provided by (used for):		
Operating activities:		
Net income	\$ 289,407	\$ 272,363
Adjustments to reconcile net income to total operating activities:		
Depreciation and amortization	86,384	80,937
Deferred income taxes	(634)	4,382
Share-based compensation expense	14,113	11,035
Net change in assets and liabilities, net of acquisitions	3,404	(26,331)
Pension contribution	(51,716)	(1,777)
Other, net	450	(50)
Total operating activities	341,408	340,559
Investing activities:		
Additions to property, plant and equipment	(27,664)	(25,251)
Purchases of businesses, net of cash acquired	(518,634)	(293,468)
Other, net	(399)	500
Total investing activities	(546,697)	(318,219)
Financing activities:		
Net change in short-term borrowings	(6,816)	221,901
Repurchases of common stock	(5,474)	(135,295)
Cash dividends paid	(41,300)	(41,956)
Excess tax benefits from share-based payments	—	4,196
Proceeds from employee stock plans and other, net	30,396	7,661
Total financing activities	(23,194)	56,507
Effect of exchange rate changes on cash and cash equivalents	27,707	(3,657)
(Decrease) increase in cash and cash equivalents	(200,776)	75,190
Cash and cash equivalents:		
Beginning of period	717,259	381,005
End of period	<u>\$ 516,483</u>	\$ 456,195

See accompanying notes.

1. Basis of Presentation

The accompanying consolidated financial statements are unaudited. AMETEK, Inc. (the "Company") believes that all adjustments (which primarily consist of normal recurring accruals) necessary for a fair presentation of the consolidated financial position of the Company at June 30, 2017, the consolidated results of its operations for the three and six months ended June 30, 2017 and 2016 and its cash flows for the six months ended June 30, 2017 and 2016 have been included. Quarterly results of operations are not necessarily indicative of results for the full year. The accompanying consolidated financial statements should be read in conjunction with the audited consolidated financial statements and related notes presented in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 as filed with the Securities and Exchange Commission.

2. Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09") and modified the standard thereafter. The objective of ASU 2014-09 is to establish a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and will supersede most of the existing revenue recognition guidance. The core principle of ASU 2014-09 is that an entity recognizes revenue at the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 applies to all contracts with customers except those that are within the scope of other topics in the FASB Accounting Standards Codification.

ASU 2014-09 is effective for interim and annual reporting periods beginning after December 15, 2017 and may be early adopted for interim and annual reporting periods beginning after December 15, 2016. The Company will adopt ASU 2014-09 as of January 1, 2018. The guidance permits adoption by retrospectively applying the guidance to each prior reporting period presented (full retrospective method) or prospectively applying the guidance and providing additional disclosures comparing results to previous guidance, with the cumulative effect of initially applying the guidance recognized in beginning retained earnings at the date of initial application (modified retrospective method). The Company expects to use the modified retrospective method of adoption.

ASU 2014-09 is primarily expected to impact the Company's revenue recognition procedures by requiring recognition of certain revenues to move from upon shipment or delivery to over-time. The recording of certain revenues over-time is not expected to have a material impact on the Company's consolidated results of operations or financial position. Also, the Company is developing the additional expanded disclosures required. The Company is in the process of identifying and implementing the appropriate changes to business processes and controls to support recognition and disclosure under ASU 2014-09. While the Company continues to finalize the overall potential impact of the new guidance, it does not currently expect the adoption of ASU 2014-09 to have a material impact on its consolidated results of operations, financial position and cash flows.

In July 2015, the FASB issued ASU No. 2015-11, *Simplifying the Measurement of Inventory* ("ASU 2015-11"), which applies to inventory that is measured using first-in, first-out ("FIFO") or average cost. As prescribed in this update, an entity should measure inventory that is within scope at the lower of cost and net realizable value, which is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Subsequent measurement is unchanged for inventory that is measured using last-in, first-out ("LIFO"). The Company prospectively adopted ASU 2015-11 effective January 1, 2017 and the adoption did not have a significant impact on the Company's consolidated results of operations, financial position or cash flows.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes* ("ASU 2015-17"). ASU 2015-17 simplifies the presentation of deferred taxes by requiring deferred tax assets and liabilities be classified as noncurrent on the consolidated balance sheet. The Company prospectively adopted ASU 2015-17 effective January 1, 2017 and the adoption did not have a significant impact on the Company's consolidated results of operations, financial position or cash flows. The December 31, 2016 consolidated balance sheet was not adjusted for the adoption of ASU 2015-17.

In February 2016, the FASB issued ASU No. 2016-02, *Leases* ("ASU 2016-02"). The new standard establishes a right-of-use model that requires a lessee to record a right-of-use asset and a lease liability on the balance sheet for all leases with terms longer than twelve months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. ASU 2016-02 is effective for interim and annual reporting periods beginning after December 15, 2018. ASU 2016-02 is to be adopted using a modified retrospective approach and early adoption is permitted. The Company has not determined the impact ASU 2016-02 may have on the Company's consolidated results of operations, financial position, cash flows and financial statement disclosures.

In March 2016, the FASB issued ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09"). ASU 2016-09 includes changes to the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. The Company prospectively adopted ASU 2016-09 effective January 1, 2017. For the three and six months ended June 30, 2017, the Company recorded a tax benefit of \$3.1 million and \$8.9 million, respectively, within Provision for income taxes related to the tax effects of share-based payment transactions. Prior to adoption, this amount would have been recorded as a component of Capital in excess of par value. The adoption of this standard could create volatility in the Company's effective tax rate going forward. The Company elected not to change its accounting policy with respect to the estimation of forfeitures. The Company no longer reclassifies the excess tax benefits from share-based payments from operating activities in the consolidated statement of cash flows. For the three and six months ended June 30, 2017, the Company exceeds available to repurchase shares in the computation of its diluted earnings per share and the related increase in the Company's diluted weighted average common shares outstanding was not significant.

In January 2017, the FASB issued ASU No. 2017-01, *Clarifying the Definition of a Business* ("ASU 2017-01"). ASU 2017-01 provides a more robust framework to use in determining when a set of assets and activities is a business. ASU 2017-01 requires an entity to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets; if so, the set of assets is not a business. ASU 2017-01 requires that, to be a business, the set must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. ASU 2017-01 is effective for interim and annual reporting periods beginning after December 15, 2017. ASU 2017-01 will be applied prospectively to any transactions occurring within the period of adoption. Early adoption is permitted, including for interim or annual periods in which the financial statements have not been issued or made available for issuance. The Company does not expect the adoption of ASU 2017-01 to have a significant impact on the Company's consolidated results of operations, financial position, cash flows and financial statement disclosures.

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 eliminates the requirement to calculate the implied fair value of goodwill (second step) to measure a goodwill impairment charge. Under the guidance, an impairment charge will be measured based on the excess of the reporting unit's carrying amount over its fair value (first step). ASU 2017-04 is effective for interim and annual reporting periods beginning after December 15, 2019 and early adoption is permitted. The Company early adopted ASU 2017-04 effective January 1, 2017 and the adoption did not have a significant impact on the Company's consolidated results of operations, financial position, cash flows and financial statement disclosures.

In March 2017, the FASB issued ASU No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* ("ASU 2017-07"), which changes how employers that sponsor defined benefit pension and/or other postretirement benefit plans present the net periodic benefit cost in the income statement. ASU 2017-07 requires employers to present the service cost component of net periodic benefit cost in the same income statement line item as other employee compensation costs. All other components of the net periodic benefit cost will be presented outside of operating income. ASU 2017-07 is effective for interim and annual reporting periods beginning after December 15, 2017 and early adoption is permitted. The Company has not determined the impact ASU 2017-07 may have on the Company's consolidated results of operations, financial position or cash flows.

In May 2017, the FASB issued ASU No. 2017-09, *Scope of Modification Accounting* ("ASU 2017-09"). ASU 2017-09 clarifies which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. ASU 2017-09 is effective for interim and annual reporting periods beginning after December 15, 2017 and early adoption is permitted. The Company does not expect the adoption of ASU 2017-09 to have a significant impact on the Company's consolidated results of operations, financial position or cash flows.

3. Earnings Per Share

The calculation of basic earnings per share is based on the weighted average number of common shares considered outstanding during the periods. The calculation of diluted earnings per share reflects the effect of all potentially dilutive securities (principally outstanding stock options and restricted stock grants). The number of weighted average shares used in the calculation of basic earnings per share and diluted earnings per share was as follows:

	Three Months Ended June 30,		Six Months Ended	
			June	30,
	2017	2016	2017	2016
	(In thousands)			
Weighted average shares:				
Basic shares	230,158	233,285	229,853	234,134
Equity-based compensation plans	1,430	1,505	1,443	1,369
Diluted shares	231,588	234,790	231,296	235,503

4. Accumulated Other Comprehensive Income (Loss)

The components of accumulated other comprehensive income (loss) consisted of the following:

	Three Months Ended June 30, 2017		Three Months Ende June 30, 2016		led	
	Foreign Currency Items and Other	Defined Benefit Pension Plans	Total	Foreign Currency Items and Other	Defined Benefit Pension Plans	Total
			(In thou	,		
Balance at the beginning of the period	\$(330,569)	\$(201,567)	\$(532,136)	\$(217,102)	\$(153,423)	\$(370,525)
Other comprehensive income (loss) before reclassifications:						
Translation adjustments	59,525	_	59,525	(37,819)		(37,819)
Change in long-term intercompany notes	15,988	_	15,988	(9,904)	_	(9,904)
Net investment hedges	(63,933)	_	(63,933)	(10,271)		(10,271)
Gross amounts reclassified from accumulated other comprehensive						
income (loss)	_	3,512	3,512	_	2,484	2,484
Income tax benefit (expense)	24,067	(1,321)	22,746	3,595	(869)	2,726
Other comprehensive (loss) income, net of tax	35,647	2,191	37,838	(54,399)	1,615	(52,784)
Balance at the end of the period	<u>\$(294,922)</u>	<u>\$(199,376)</u>	<u>\$(494,298)</u>	\$(271,501)	\$(151,808)	\$(423,309)

		x Months Ende June 30, 2017	d		x Months Ende June 30, 2016	d
	Foreign Currency Items and Other	Defined Benefit Pension Plans	Total	Foreign Currency Items and Other	Defined Benefit Pension Plans	Total
			(In thou	,		
Balance at the beginning of the period	\$(338,631)	\$(203,758)	<u>\$(542,389)</u>	<u>\$(250,593)</u>	\$(155,038)	\$(405,631)
Other comprehensive income (loss) before reclassifications:						
Translation adjustments	64,204	_	64,204	(16,140)		(16,140)
Change in long-term intercompany notes	18,692		18,692	3,799		3,799
Net investment hedges	(62,889)	_	(62,889)	(13, 181)	_	(13, 181)
Gross amounts reclassified from accumulated other comprehensive						
income (loss)	_	7,024	7,024		4,968	4,968
Income tax benefit (expense)	23,702	(2,642)	21,060	4,614	(1,738)	2,876
Other comprehensive (loss) income, net of tax	43,709	4,382	48,091	(20,908)	3,230	(17,678)
Balance at the end of the period	<u>\$(294,922)</u>	<u>\$(199,376)</u>	<u>\$(494,298)</u>	<u>\$(271,501</u>)	<u>\$(151,808)</u>	\$(423,309)

Reclassifications for the amortization of defined benefit pension plans are included in Cost of sales in the consolidated statement of income. See Note 12 for further details.

5. Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The Company utilizes a valuation hierarchy for disclosure of the inputs to the valuations used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument. Level 3 inputs are unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value. A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following table provides the Company's assets that are measured at fair value on a recurring basis as of June 30, 2017 and December 31, 2016, consistent with the fair value hierarchy:

	June 30, 2017 Fair Value		ber 31, 2016 ir Value	
	(In the	(In thousands)		
Fixed-income investments	\$ 7,749	\$	7,317	

The fair value of fixed-income investments, which are valued as level 1 investments, was based on quoted market prices. The fixed-income investments are shown as a component of long-term assets on the consolidated balance sheet.

For the six months ended June 30, 2017 and 2016, gains and losses on the investments noted above were not significant. No transfers between level 1 and level 2 investments occurred during the six months ended June 30, 2017 and 2016.

Financial Instruments

Cash, cash equivalents and fixed-income investments are recorded at fair value at June 30, 2017 and December 31, 2016 in the accompanying consolidated balance sheet.

The following table provides the estimated fair values of the Company's financial instrument liabilities, for which fair value is measured for disclosure purposes only, compared to the recorded amounts at June 30, 2017 and December 31, 2016:

	June 3	June 30, 2017		r 31, 2016
	Recorded		Recorded	
	Amount	Fair Value	Amount	Fair Value
	(In thousands)			
Short-term borrowings, net	s —	s —	\$ —	\$ —
Long-term debt, net (including current portion)	(2,401,388)	(2,435,560)	(2,341,565)	(2,386,901)

The fair value of short-term borrowings, net approximates the carrying value. Short-term borrowings, net are valued as level 2 liabilities as they are corroborated by observable market data. The Company's long-term debt, net is all privately held with no public market for this debt, therefore, the fair value of long-term debt, net was computed based on comparable current market data for similar debt instruments and is considered to be a level 3 liability.

6. Hedging Activities

The Company has designated certain foreign-currency-denominated long-term borrowings as hedges of the net investment in certain foreign operations. As of June 30, 2017, these net investment hedges included British-pound-and Euro-denominated long-term debt. These borrowings were designed to create net investment hedges in each of the designated foreign subsidiaries. The Company designated the British-pound- and Euro-denominated loans referred to above as hedging instruments to offset translation gains or losses on the net investment due to changes in the British pound and Euro exchange rates. These net investment hedges are evidenced by management's contemporaneous documentation supporting the hedge designation. Any gain or loss on the hedging instruments (the debt) following hedge designation is reported in accumulated other comprehensive income in the same manner as the translation adjustment on the investment based on changes in the spot rate, which is used to measure hedge effectiveness.

At June 30, 2017, the Company had \$396.3 million of British-pound-denominated loans, which were designated as a hedge against the net investment in British pound functional currency foreign subsidiaries. At June 30, 2017, the Company had \$570.6 million in Euro-denominated loans, which were designated as a hedge against the net investment in Euro functional currency foreign subsidiaries. As a result of the British-pound-and Euro-denominated loans being designated and 100% effective as net investment hedges, \$62.9 million of currency remeasurement losses have been included in the foreign currency translation component of other comprehensive income for the six months ended June 30, 2017.

7. Inventories, net

	June 30, 2017	December 31, 2016
	(In th	ousands)
Finished goods and parts	\$ 83,126	\$ 75,827
Work in process	114,777	101,484
Raw materials and purchased parts	343,310	314,793
Total inventories, net	\$541,213	\$ 492,104

8. Acquisitions

The Company spent \$518.6 million in cash, net of cash acquired, to acquire Rauland-Borg Corporation ("Rauland") in February 2017 and MOCON, Inc. in June 2017. The Rauland acquisition includes a potential \$30 million contingent payment due upon the achievement of certain milestones as described further below. Rauland is a global provider of enterprise clinical and education communications solutions for hospitals, healthcare systems and educational facilities. MOCON is a provider of laboratory and field gas analysis instrumentation to research laboratories, production facilities and quality control departments in food and beverage, pharmaceutical and industrial applications. Rauland and MOCON are part of AMETEK's Electronic Instruments Group.

The following table represents the preliminary allocation of the aggregate purchase price for the net assets of the 2017 acquisitions based on their estimated fair values at acquisition (in millions):

Property, plant and equipment	\$ 21.5
Goodwill	256.0
Other intangible assets	269.5
Long-term liabilities	(10.6)
Deferred income taxes	(27.2)
Net working capital and other(1)	34.9
Total purchase price	544.1
Less: Contingent payment liability	(25.5)
Total cash paid	\$518.6

(1) Includes \$30.7 million in accounts receivable, whose fair value, contractual cash flows and expected cash flows are approximately equal.

The amount allocated to goodwill is reflective of the benefits the Company expects to realize from the 2017 acquisitions as follows: Rauland provides the Company with an attractive new growth segment within the medical technology market, strong growth opportunities in its core markets and incremental growth opportunities through acquisitions and international expansion. MOCON's products and technologies complement the Company's existing gas analysis instrumentation business and provides it with opportunities to expand into the growing food and pharmaceutical package testing market. The Company expects approximately \$146.4 million of the goodwill recorded in connection with the 2017 acquisitions will be tax deductible in future years.

At June 30, 2017, purchase price allocated to other intangible assets of \$269.5 million consists of \$53.6 million of indefinite-lived intangible trade names, which are not subject to amortization. The remaining \$215.9 million of other intangible assets consists of \$162.0 million of customer relationships, which are being amortized over a period of 18 years and \$53.9 million of purchased technology, which is being amortized over a period of 18 years. Amortization expense for each of the next five years for the 2017 acquisitions is expected to approximate \$12 million per year.

The Company is in the process of finalizing the measurement of certain tangible and intangible assets and liabilities for its 2017 acquisitions, including inventory, property, plant and equipment, goodwill, customer relationships, trade names, purchased technology, and the accounting for income taxes and certain long-term liabilities.

The above mentioned contingent payment is based on Rauland achieving a certain cumulative revenue target over the period October 1, 2016 to September 30, 2018. If Rauland achieves the target, the \$30 million contingent payment will be made; however, if the target is not achieved, no payment will be made. At the acquisition date, the estimated fair value of the contingent payment liability was \$25.5 million, which was based on a probabilistic approach using level 3 inputs. At June 30, 2017, there was no change to the estimated fair value of the contingent payment liability.

The 2017 acquisitions had an immaterial impact on reported net sales, net income and diluted earnings per share for the three and six months ended June 30, 2017. Had the 2017 acquisitions been made at the beginning of 2017 or 2016, unaudited pro forma net sales, net income and diluted earnings per share for the three and six months ended June 30, 2017 and 2016, respectively, would not have been materially different than the amounts reported.

9. Goodwill

The changes in the carrying amounts of goodwill by segment were as follows:

	Electronic Instruments	Electro- mechanical	
	Group	Group	Total
		(In millions)	
Balance at December 31, 2016	\$ 1,817.0	\$ 1,002.0	\$2,819.0
Goodwill acquired	256.0	_	256.0
Purchase price allocation adjustments and other	_	0.6	0.6
Foreign currency translation adjustments	21.0	20.5	41.5
Balance at June 30, 2017	\$ 2,094.0	\$ 1,023.1	\$3,117.1

10. Income Taxes

At June 30, 2017, the Company had gross unrecognized tax benefits of \$61.7 million, of which \$52.1 million, if recognized, would impact the effective tax rate.

The following is a reconciliation of the liability for uncertain tax positions (in millions):

Balance at December 31, 2016	\$57.9
Additions for tax positions	4.0
Reductions for tax positions	(0.2)
Balance at June 30, 2017	<u>\$61.7</u>

The Company recognizes interest and penalties accrued related to uncertain tax positions in income tax expense. The amounts recognized in income tax expense for interest and penalties during the three and six months ended June 30, 2017 and 2016 were not significant.

11. Share-Based Compensation

Total share-based compensation expense was as follows:

		Three Months Ended June 30,		ths Ended e 30,		
	2017	2017 2016		017 2016 2017		2016
		(In tho	usands)			
Stock option expense	\$ 2,754	\$ 3,224	\$ 4,967	\$ 5,323		
Restricted stock expense	6,031	2,732	9,146	5,712		
Total pre-tax expense	\$ 8,785	\$ 5,956	\$14,113	\$11,035		

Pre-tax share-based compensation expense is included in the consolidated statement of income in either Cost of sales or Selling, general and administrative expenses, depending on where the recipient's cash compensation is reported. In the second quarter of 2017, the Company recorded a \$2.5 million pre-tax charge in corporate administrative expenses related to the accelerated vesting of restricted stock grants in association with the retirement of the Company's Executive Chairman of the Board of Directors.

The fair value of each stock option grant is estimated on the date of grant using a Black-Scholes-Merton option pricing model. The following weighted average assumptions were used in the Black-Scholes-Merton model to estimate the fair values of stock options granted during the periods indicated:

	nths Ended 30, 2017	r Ended er 31, 2016
Expected volatility	 18.0%	 21.8%
Expected term (years)	5.0	5.0
Risk-free interest rate	1.94%	1.23%
Expected dividend yield	0.60%	0.77%
Black-Scholes-Merton fair value per stock option granted	\$ 11.05	\$ 9.14

Expected volatility is based on the historical volatility of the Company's stock. The Company used historical exercise data to estimate the stock options' expected term, which represents the period of time that the stock options granted are expected to be outstanding. Management anticipates that the future stock option holding periods will be similar to the historical stock option holding periods. The risk-free interest rate for periods within the expected term of the stock option is based on the U.S. Treasury yield curve at the time of grant. Compensation expense recognized for all share-based awards is net of estimated forfeitures. The Company's estimated forfeiture rates are based on its historical experience.

The following is a summary of the Company's stock option activity and related information:

	Shares (In thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In millions)
Outstanding at December 31, 2016	6,011	\$ 42.25		
Granted	1,327	60.31		
Exercised	(1,065)	29.56		
Forfeited	(104)	51.16		
Expired	(6)	52.22		
Outstanding at June 30, 2017	6,163	<u>\$ 48.17</u>	4.5	<u>\$ 76.4</u>
Exercisable at June 30, 2017	3,153	\$ 42.52	3.1	<u>\$ 56.9</u>

The aggregate intrinsic value of stock options exercised during the six months ended June 30, 2017 was \$27.8 million. The total fair value of stock options vested during the six months ended June 30, 2017 was \$10.5 million. As of June 30, 2017, there was approximately \$27 million of expected future pre-tax compensation expense related to the 3.0 million nonvested stock options outstanding, which is expected to be recognized over a weighted average period of approximately two years.

The following is a summary of the Company's nonvested restricted stock activity and related information:

	Shares (In thousands)	A Gra	eighted verage ant Date ir Value
Nonvested restricted stock outstanding at December 31, 2016	1,019	\$	48.59
Granted	333		60.22
Vested	(271)		45.10
Forfeited	(36)		50.76
Nonvested restricted stock outstanding at June 30, 2017	1,045	\$	53.13

The total fair value of restricted stock vested during the six months ended June 30, 2017 was \$12.2 million. As of June 30, 2017, there was approximately \$36 million of expected future pre-tax compensation expense related to the 1.0 million nonvested restricted shares outstanding, which is expected to be recognized over a weighted average period of approximately two years.

12. Retirement and Pension Plans

The components of net periodic pension benefit expense (income) were as follows:

		Three Months Ended June 30,		hs Ended e 30,
	2017	2016	2017	2016
		(In tho	usands)	
Defined benefit plans:				
Service cost	\$ 1,883	\$ 1,669	\$ 3,738	\$ 3,328
Interest cost	6,857	7,627	13,662	15,240
Expected return on plan assets	(13,303)	(12,977)	(26,541)	(25,946)
Amortization of net actuarial loss and other	3,512	2,484	7,024	4,968
Pension income	(1,051)	(1,197)	(2,117)	(2,410)
Other plans:				
Defined contribution plans	5,924	5,835	12,958	12,877
Foreign plans and other	1,412	1,342	2,888	2,678
Total other plans	7,336	7,177	15,846	15,555
Total net pension expense	\$ 6,285	\$ 5,980	\$ 13,729	\$ 13,145

For the six months ended June 30, 2017 and 2016, contributions to the Company's defined benefit pension plans were \$51.7 million and \$1.8 million, respectively. The Company's current estimate of 2017 contributions to its worldwide defined benefit pension plans is in line with the range disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

13. Product Warranties

The Company provides limited warranties in connection with the sale of its products. The warranty periods for products sold vary among the Company's operations, but generally do not exceed one year. The Company calculates its warranty expense provision based on its historical warranty experience and adjustments are made periodically to reflect actual warranty expenses.

Changes in the accrued product warranty obligation were as follows:

	Six Months Ended June 30,	
	2017	2016
	(In thou	ısands)
Balance at the beginning of the period	\$22,007	\$22,761
Accruals for warranties issued during the period	7,983	6,734
Settlements made during the period	(8,380)	(8,620)
Warranty accruals related to acquired businesses and other during the period	2,133	984
Balance at the end of the period	\$23,743	\$21,859

Certain settlements of warranties made during the period were for specific nonrecurring warranty obligations. Product warranty obligations are reported as current liabilities in the consolidated balance sheet.

14. Contingencies

Asbestos Litigation

The Company (including its subsidiaries) has been named as a defendant in a number of asbestos-related lawsuits. Certain of these lawsuits relate to a business which was acquired by the Company and do not involve products which were manufactured or sold by the Company. In connection with these lawsuits, the seller of such business has agreed to indemnify the Company against these claims (the "Indemnified Claims"). The Indemnified Claims have been tendered to, and are being defended by, such seller. The seller has met its obligations, in all respects, and the Company does not have any reason to believe such party would fail to fulfill its obligations in the future. To date, no judgments have been rendered against the Company as a result of any asbestos-related lawsuit. The Company believes it has strong defenses to the claims being asserted and intends to continue to vigorously defend itself in these matters.

Environmental Matters

Certain historic processes in the manufacture of products have resulted in environmentally hazardous waste by-products as defined by federal and state laws and regulations. At June 30, 2017, the Company is named a Potentially Responsible Party ("PRP") at 13 non-AMETEK-owned former waste disposal or treatment sites (the "non-owned" sites). The Company is identified as a "de minimis" party in 12 of these sites based on the low volume of waste attributed to the Company relative to the amounts attributed to other named PRPs. In eight of these sites, the Company has reached a tentative agreement on the cost of the de minimis settlement to satisfy its obligation and is awaiting executed agreements. The tentatively agreed-to settlement amounts are fully reserved. In the other four sites, the Company is continuing to investigate the accuracy of the alleged volume attributed to the Company as estimated by the parties primarily responsible for remedial activity at the sites to establish an appropriate settlement amount. At the remaining site where the Company is a non-de minimis PRP, the Company is participating in the investigation and/or related required remediation as part of a PRP Group and reserves have been established sufficient to satisfy the Company's expected obligations. The Company historically has resolved these issues within established reserve levels and reasonably expects this result will continue. In addition to these non-owned sites, the Company has an ongoing practice of providing reserves for probable remediation activities at certain of its current or previously owned manufacturing locations (the "owned" sites). For claims and proceedings against the Company with respect to other environmental matters, reserves are established once the Company has determined that a loss is probable and estimable. This estimate is refined as the Company moves through the various stages of investigation, risk assessment, feasibility study and corrective action processes. In certain instances, the Company has developed a range of estimates for such costs and has recorded a liability based on the best estimate. It is reasonably possible that the actual cost of remediation of the individual sites could vary from the current estimates and the amounts accrued in the consolidated financial statements; however, the amounts of such variances are not expected to result in a material change to the consolidated financial statements. In estimating the Company's liability for remediation, the Company also considers the likely proportionate share of the anticipated remediation expense and the ability of the other PRPs to fulfill their obligations.

Total environmental reserves at June 30, 2017 and December 31, 2016 were \$28.0 million and \$28.4 million, respectively, for both non-owned and owned sites. For the six months ended June 30, 2017, the Company recorded \$2.2 million in reserves and the reserve increased \$0.2 million due to foreign currency translation. Additionally, the Company spent \$2.8 million on environmental matters for the six months ended June 30, 2017. The Company's reserves for environmental liabilities at June 30, 2017 and December 31, 2016 include reserves of \$12.1 million and \$12.4 million, respectively, for an owned site acquired in connection with the 2005 acquisition of HCC Industries ("HCC"). The Company is the designated performing party for the performance of remedial activities for one of several operating units making up a Superfund site in the San Gabriel Valley of California. The Company has obtained indemnifications and other financial assurances from the former owners of HCC related to the costs of the required remedial activities. At June 30, 2017, the Company had \$11.9 million in receivables related to HCC for probable recoveries from third-party escrow funds and other committed third-party funds to support the required remediation. Also, the Company is indemnified by HCC's former owners for approximately \$19 million of additional costs.

The Company has agreements with other former owners of certain of its acquired businesses, as well as new owners of previously owned businesses. Under certain of the agreements, the former or new owners retained, or assumed and agreed to indemnify the Company against, certain environmental and other liabilities under certain circumstances. The Company and some of these other parties also carry insurance coverage for some environmental matters. To date, these parties have met their obligations in all material respects.

The Company believes it has established reserves which are sufficient to perform all known responsibilities under existing claims and consent orders. The Company has no reason to believe that other third parties would fail to perform their obligations in the future. In the opinion of management, based on presently available information and the Company's historical experience related to such matters, an adequate provision for probable costs has been made and the ultimate cost resulting from these actions is not expected to materially affect the consolidated results of operations, financial position or cash flows of the Company.

15. Reportable Segments

The Company has two reportable segments, Electronic Instruments Group ("EIG") and Electromechanical Group ("EMG"). The Company's operating segments are identified based on the existence of segment managers. Certain of the Company's operating segments have been aggregated for segment reporting purposes primarily on the basis of product type, production processes, distribution methods and similarity of economic characteristics.

At June 30, 2017, there were no significant changes in identifiable assets of reportable segments from the amounts disclosed at December 31, 2016, other than those described in the acquisitions footnote (Note 8), nor were there any significant changes in the basis of segmentation or in the measurement of segment operating results. Operating information relating to the Company's reportable segments for the three and six months ended June 30, 2017 and 2016 can be found in the table included in Part I, Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Quarterly Report on Form 10-Q.

16. Stockholders' Equity

The Company had a Shareholder Rights Plan, which expired in June 2017. Under the Plan, the Company's Board of Directors declared a dividend of one Right for each share of Company common stock owned at the close of business on June 2, 2007, and had authorized the issuance of one Right for each share of common stock of the Company issued between the Record Date and the Distribution Date. The Plan provided, under certain conditions involving acquisition of the Company's common stock, that holders of Rights, except for the acquiring entity, would be entitled (i) to purchase shares of preferred stock at a specified exercise price, or (ii) to purchase shares of common stock of the Company, or the acquiring company, having a value of twice the Rights exercise price.

17. Restructuring Charges

During the fourth quarter of 2016, the Company recorded pre-tax restructuring charges totaling \$25.6 million, which had the effect of reducing net income by \$17.0 million. The restructuring charges were reported in the consolidated statement of income as follows: \$24.0 million in Cost of sales and \$1.6 million in Selling, general and administrative expenses. The restructuring charges were reported in segment operating income as follows: \$12.4 million in EIG, \$11.6 million in EMG and \$1.6 million in corporate administrative expenses. The restructuring actions primarily related to \$19.3 million in severance costs for a reduction in workforce and \$6.2 million of asset write-downs in response to the impact of a weak global economy on certain of the Company's businesses and the effects of a continued strong U.S. dollar. The restructuring activities will be broadly implemented across the Company's various businesses through the end of 2017, with most actions expected to be completed in 2018.

During the fourth quarter of 2015, the Company recorded pre-tax restructuring charges totaling \$20.7 million, which had the effect of reducing net income by \$13.9 million. The restructuring charges were reported in the consolidated statement of income as follows: \$20.0 million in Cost of sales and \$0.7 million in Selling, general and administrative expenses. The restructuring charges were reported in segment operating income as follows: \$9.3 million in EIG, \$10.8 million in EMG and \$0.7 million in corporate administrative expenses. The restructuring actions primarily related to a reduction in workforce in response to the impact of a weak global economy on certain of the Company's businesses and the effects of a continued strong U.S. dollar. The restructuring activities have been broadly implemented across the Company's various businesses with all actions expected to be completed in the second half of 2017.

Accrued liabilities in the Company's consolidated balance sheet included amounts related to the fourth quarter of 2016 and fourth quarter of 2015 restructuring charges as follows (in millions):

	Fourth Quarter of 2016				Fourth Quarter of 2015	
	Restr	ucturing	Restr	ucturing		
Balance at December 31, 2016	\$	19.2	\$	9.2		
Utilization		(4.2)		(1.6)		
Foreign currency translation adjustments and other		0.1		0.1		
Balance at June 30, 2017	\$	15.1	\$	7.7		

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

Results of Operations

The following table sets forth net sales and income by reportable segment and on a consolidated basis:

		Three Months Ended June 30,		hs Ended e 30,
	2017	2016	2017	2016
		(In the	ousands)	
Net sales(1):				
Electronic Instruments	\$ 657,663	\$595,992	\$1,277,432	\$1,164,948
Electromechanical	406,941	381,714	794,854	757,156
Consolidated net sales	\$1,064,604	\$977,706	\$2,072,286	\$1,922,104
Operating income and income before income taxes:				
Segment operating income ⁽²⁾ :				
Electronic Instruments	\$ 165,216	\$152,115	\$ 321,937	\$ 293,947
Electromechanical	85,559	80,316	164,909	159,742
Total segment operating income	250,775	232,431	486,846	453,689
Corporate administrative and other expenses	(18,390)	(13,395)	(34,163)	(26,130)
Consolidated operating income	232,385	219,036	452,683	427,559
Interest and other expenses, net	(29,030)	(28,475)	(57,906)	(53,956)
Consolidated income before income taxes	\$ 203,355	\$190,561	\$ 394,777	\$ 373,603

(1) After elimination of intra- and intersegment sales, which are not significant in amount.

(2) Segment operating income represents net sales less all direct costs and expenses (including certain administrative and other expenses) applicable to each segment, but does not include interest expense.

For the quarter ended June 30, 2017, the Company posted record orders and sales, and strong operating income, net income and diluted earnings per share. The Company achieved these results from organic sales growth in both the Electronic Instruments Group ("EIG") and Electromechanical Group ("EMG"), contributions from the acquisitions of MOCON, Inc. in June 2017, Rauland-Borg Corporation ("Rauland") in February 2017, Laserage Technology Corporation ("Laserage") in October 2016 and HS Foils and Nu Instruments in July 2016, as well as our Operational Excellence initiatives, including the 2016 realignment actions.

The Company recorded realignment costs totaling \$25.6 million in the fourth quarter of 2016 (the "2016 realignment costs"). The restructuring actions primarily related to \$19.3 million in severance costs for a reduction in workforce and \$6.2 million of asset write-downs in response to the impact of a weak global economy on certain of the Company's businesses and the effects of a continued strong U.S. dollar. See Note 17 to the Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for further details.

For 2017, the strengthening global economic environment compared to 2016, the full year impact of the 2017 and 2016 acquisitions and continued focus on and implementation of Operational Excellence initiatives, including the 2016 realignment actions, are expected to have a positive impact on the remainder of the Company's 2017 results.

Results of Operations (continued)

Results of operations for the second quarter of 2017 compared with the second quarter of 2016

Net sales for the second quarter of 2017 were \$1,064.6 million, an increase of \$86.9 million or 8.9%, compared with net sales of \$977.7 million for the second quarter of 2016. The increase in net sales for the second quarter of 2017 was due to a 6% increase from acquisitions and 4% organic sales growth, partially offset by an unfavorable 1% effect of foreign currency translation.

Total international sales for the second quarter of 2017 were \$543.8 million or 51.1% of net sales, an increase of \$34.4 million or 6.8%, compared with international sales of \$509.4 million or 52.1% of net sales for the second quarter of 2016. The \$34.4 million increase in international sales was primarily driven by higher organic sales growth. Both reportable segments of the Company maintain strong international sales presences in Europe and Asia.

Orders for the second quarter of 2017 were \$1,137.4 million, an increase of \$193.0 million or 20.4%, compared with \$944.4 million for the second quarter of 2016. The increase in orders for the second quarter of 2017 was due to 12% organic order growth, a 6% increase from acquisitions and favorable 3% effect of foreign currency translation.

Segment operating income for the second quarter of 2017 was \$250.8 million, an increase of \$18.4 million or 7.9%, compared with segment operating income of \$232.4 million for the second quarter of 2016. Segment operating income, as a percentage of net sales, decreased to 23.6% for the second quarter of 2017, compared with 23.8% for the second quarter of 2016.

Cost of sales for the second quarter of 2017 was \$699.7 million or 65.7% of net sales, an increase of \$60.0 million or 9.4%, compared with \$639.7 million or 65.4% of net sales for the second quarter of 2016. The cost of sales increase for the second quarter of 2017 was affected by the net sales increase noted above.

Selling, general and administrative ("SG&A") expenses for the second quarter of 2017 were \$132.5 million or 12.4% of net sales, an increase of \$13.5 million or 11.3%, compared with \$119.0 million or 12.2% of net sales for the second quarter of 2016. SG&A expenses increased primarily due to the higher sales mentioned above and a second quarter of 2017 \$2.5 million equity-based compensation charge related to the accelerated vesting of restricted stock grants in association with the retirement of the Company's Executive Chairman of the Board of Directors.

Consolidated operating income was \$232.4 million or 21.8% of net sales for the second quarter of 2017, an increase of \$13.4 million or 6.1%, compared with \$219.0 million or 22.4% of net sales for the second quarter of 2016.

The effective tax rate for the second quarter of 2017 was 26.0%, compared with 27.5% for the second quarter of 2016. The effective tax rates for the second quarter of 2017 and 2016 reflect the impact of foreign earnings, which are taxed at lower rates, and tax benefits related to international and state tax planning initiatives. The second quarter of 2017 effective tax rate reflects \$3.1 million of tax benefits related to share-based payment transactions in accordance with the January 1, 2017 adoption of ASU 2016-09. See Note 2 to the Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for further details.

Net income for the second quarter of 2017 was \$150.5 million, an increase of \$12.3 million or 8.9%, compared with \$138.2 million for the second quarter of 2016.

Diluted earnings per share for the second quarter of 2017 were \$0.65, an increase of \$0.06 or 10.2%, compared with \$0.59 per diluted share for the second quarter of 2016.

Results of Operations (continued)

Segment Results

EIG's net sales totaled \$657.7 million for the second quarter of 2017, an increase of \$61.7 million or 10.4%, compared with \$596.0 million for the second quarter of 2016. The net sales increase was due to a 9% increase from the 2017 acquisition of Rauland and 2016 acquisitions of HS Foils and Nu Instruments, and 2% organic sales growth, partially offset by an unfavorable 1% effect of foreign currency translation.

EIG's operating income was \$165.2 million for the second quarter of 2017, an increase of \$13.1 million or 8.6%, compared with \$152.1 million for the second quarter of 2016. The increase in EIG's operating income for the second quarter of 2017 was primarily due to the higher sales mentioned above, as well as the benefits of the Group's Operational Excellence initiatives. EIG's operating margins were 25.1% of net sales for the second quarter of 2017, compared with \$25.5% of net sales for the second quarter of 2016. The decrease in EIG's operating margins for the second quarter of 2017 was driven by the impact of the acquisitions noted above, which have lower operating margins than the Group's base businesses.

EMG's net sales totaled \$406.9 million for the second quarter of 2017, an increase of \$25.2 million or 6.6%, compared with \$381.7 million for the second quarter of 2016. The net sales increase was due to 7% organic sales growth. Net sales from the 2016 acquisition of Laserage was offset by unfavorable foreign currency translation.

EMG's operating income was \$85.6 million for the second quarter of 2017, an increase of \$5.3 million or 6.6%, compared with \$80.3 million for the second quarter of 2016. The increase in EMG's operating income for the second quarter of 2017 was primarily due to the higher sales mentioned above, as well as the benefits of the Group's Operational Excellence initiatives. EMG's operating margins were 21.0% of net sales for both the second quarter of 2017 and 2016.

Results of operations for the first six months of 2017 compared with the first six months of 2016

Net sales for the first six months of 2017 were \$2,072.3 million, an increase of \$150.2 million or 7.8%, compared with net sales of \$1,922.1 million for the first six months of 2016. The increase in net sales for the first six months of 2017 was due to a 5% increase from acquisitions and 4% organic sales growth, partially offset by an unfavorable 1% effect of foreign currency translation.

Total international sales for the first six months of 2017 were \$1,068.7 million or 51.6% of net sales, an increase of \$62.9 million or 6.3%, compared with international sales of \$1,005.8 million or 52.3% of net sales for the first six months of 2016. The \$62.9 million increase in international sales was primarily driven by higher organic sales growth. Both reportable segments of the Company maintain strong international sales presences in Europe and Asia.

Orders for the first six months of 2017 were \$2,257.7 million, an increase of \$345.3 million or 18.1%, compared with \$1,912.4 million for the first six months of 2016. The increase in orders for the first six months of 2017 was due to 11% organic order growth and a 7% increase from acquisitions. Foreign currency translation was essentially flat period over period. As a result, the Company's backlog of unfilled orders was a record at June 30, 2017 of \$1,341.9 million, an increase of \$185.4 million or 16.0%, compared with \$1,156.5 million at December 31, 2016.

Segment operating income for the first six months of 2017 was \$486.8 million, an increase of \$33.1 million or 7.3%, compared with segment operating income of \$453.7 million for the first six months of 2016. Segment operating income, as a percentage of net sales, decreased to 23.5% for the first six months of 2017, compared with 23.6% for the first six months of 2016.

Cost of sales for the first six months of 2017 was \$1,364.7 million or 65.9% of net sales, an increase of \$101.3 million or 8.0%, compared with \$1,263.4 million or 65.7% of net sales for the first six months of 2016. The cost of sales increase for the first six months of 2017 was affected by the net sales increase noted above.

Results of Operations (continued)

SG&A expenses for the first six months of 2017 were \$254.9 million or 12.3% of net sales, an increase of \$23.7 million or 10.3%, compared with \$231.2 million or 12.0% of net sales for the first six months of 2016. SG&A expenses increased primarily due to the higher sales mentioned above and a second quarter of 2017 \$2.5 million equity-based compensation charge related to the accelerated vesting of restricted stock grants in association with the retirement of the Company's Executive Chairman of the Board of Directors.

Consolidated operating income was \$452.7 million or 21.8% of net sales for the first six months of 2017, an increase of \$25.1 million or 5.9%, compared with \$427.6 million or 22.2% of net sales for the first six months of 2016.

The effective tax rate for the first six months of 2017 was 26.7%, compared with 27.1% for the first six months of 2016. The effective tax rates for the first six months of 2017 and 2016 reflect the impact of foreign earnings, which are taxed at lower rates, and tax benefits related to international and state tax planning initiatives. The first six months of 2017 effective tax rate reflects \$8.9 million of tax benefits related to share-based payment transactions in accordance with the January 1, 2017 adoption of ASU 2016-09. See Note 2 to the Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for further details.

Net income for the first six months of 2017 was \$289.4 million, an increase of \$17.0 million or 6.2%, compared with \$272.4 million for the first six months of 2016.

Diluted earnings per share for the first six months of 2017 were \$1.25, an increase of \$0.09 or 7.8%, compared with \$1.16 per diluted share for the first six months of 2016.

Segment Results

EIG's net sales totaled \$1,277.4 million for the first six months of 2017, an increase of \$112.5 million or 9.7%, compared with \$1,164.9 million for the first six months of 2016. The net sales increase was due to a 8% increase from the 2017 acquisition of Rauland and 2016 acquisitions of HS Foils, Nu Instruments, Brookfield and ESP/SurgeX, and 3% organic sales growth, partially offset by an unfavorable 1% effect of foreign currency translation.

EIG's operating income was \$321.9 million for the first six months of 2017, an increase of \$28.0 million or 9.5%, compared with \$293.9 million for the first six months of 2016. The increase in EIG's operating income for the first six months of 2017 was primarily due to the higher sales mentioned above, as well as the benefits of the Group's Operational Excellence initiatives. EIG's operating margins were 25.2% of net sales for both the first six months of 2017 and 2016.

EMG's net sales totaled \$794.9 million for the first six months of 2017, an increase of \$37.7 million or 5.0%, compared with \$757.2 million for the first six months of 2016. The net sales increase was due to 5% organic sales growth. Net sales from the 2016 acquisition of Laserage was offset by unfavorable foreign currency translation.

EMG's operating income was \$164.9 million for the first six months of 2017, an increase of \$5.2 million or 3.3%, compared with \$159.7 million for the first six months of 2016. The increase in EMG's operating income for the first six months of 2017 was primarily due to the higher sales mentioned above, as well as the benefits of the Group's Operational Excellence initiatives. EMG's operating margins were 20.7% of net sales for the first six months of 2017, compared with 21.1% of net sales for the first six months of 2016. The decrease in EMG's operating income margins for the first six months of 2017 was primarily due to weaker profitability in EMG's engineered materials, interconnects and packaging businesses.

Financial Condition

Liquidity and Capital Resources

Cash provided by operating activities totaled \$341.4 million for the first six months of 2017, essentially flat, compared with \$340.6 million for the first six months of 2016. For the first six months of 2017, cash provided by operating activities included a \$50.1 million contribution to the Company's defined benefit pension plans in the first quarter of 2017, with \$40.0 million contributed to U.S. defined benefit pension plans and \$10.1 million contributed to foreign defined benefit pension plans. Offsetting the defined benefit pension plan contributions for the first six months of 2017 was higher net income and lower overall operating working capital levels driven by the Company's continued focus on working capital management.

Free cash flow (cash flow provided by operating activities less capital expenditures) was \$313.7 million for the first six months of 2017, compared with \$315.3 million for the first six months of 2016. EBITDA (earnings before interest, income taxes, depreciation and amortization) was \$529.3 million for the first six months of 2017, compared with \$501.2 million for the first six months of 2016. Free cash flow and EBITDA are presented because the Company is aware that they are measures used by third parties in evaluating the Company.

Cash used for investing activities totaled \$546.7 million for the first six months of 2017, compared with \$318.2 million for the first six months of 2016. For the first six months of 2017, the Company paid \$518.6 million, net of cash acquired, to acquire MOCON in June 2017 and Rauland in February 2017. For the first six months of 2016, the Company paid \$293.5 million, net of cash acquired, to acquire Brookfield and ESP/SurgeX in January 2016. Additions to property, plant and equipment totaled \$27.7 million for the first six months of 2017, compared with \$25.3 million for the first six months of 2016.

Cash used for financing activities totaled \$23.2 million for the first six months of 2017, compared with \$56.5 million of cash provided by financing activities for the first six months of 2016. For the first six months of 2017, short-term borrowings decreased \$6.8 million, compared with an increase of \$221.9 million for the first six months of 2016. At June 30, 2017, the Company had available borrowing capacity of \$1,115.6 million under its revolving credit facility, including the \$300 million accordion feature.

For the first six months of 2017, the Company repurchased approximately 92,000 shares of its common stock for \$5.5 million, compared with \$135.3 million used for repurchases of approximately 2,824,000 shares for the first six months of 2016. At June 30, 2017, \$370.1 million was available under the Company's Board of Directors authorization for future share repurchases.

At June 30, 2017, total debt, net was \$2,401.4 million, compared with \$2,341.6 million at December 31, 2016. In the fourth quarter of 2017, \$270 million of 6.20% senior notes will mature and become payable. The debt-to-capital ratio was 40.1% at June 30, 2017, compared with 41.8% at December 31, 2016. The net debt-to-capital ratio (total debt, net less cash and cash equivalents divided by the sum of net debt and stockholders' equity) was 34.4% at June 30, 2017, compared with 33.3% at December 31, 2016. The net debt-to-capital ratio is presented because the Company is aware that this measure is used by third parties in evaluating the Company.

As a result of all of the Company's cash flow activities for the first six months of 2017, cash and cash equivalents at June 30, 2017 totaled \$516.5 million, compared with \$717.3 million at December 31, 2016. At June 30, 2017, the Company had \$475.5 million in cash outside the United States, compared with \$481.6 million at December 31, 2016. The Company utilizes this cash to fund its international operations, as well as to acquire international businesses. The Company is in compliance with all covenants, including financial covenants, for all of its debt agreements. The Company believes it has sufficient cash-generating capabilities from domestic and unrestricted foreign sources, available credit facilities and access to long-term capital funds to enable it to meet its operating needs and contractual obligations in the foreseeable future.

Forward-Looking Information

Information contained in this discussion, other than historical information, is considered "forward-looking statements" and is subject to various factors and uncertainties that may cause actual results to differ significantly from expectations. These factors and uncertainties include general economic conditions affecting the industries the Company serves; changes in the competitive environment or the effects of competition in the Company's markets; risks associated with international sales and operations; the Company's ability to consummate and successfully integrate future acquisitions; the Company's ability to successfully develop new products, open new facilities or transfer product lines; the price and availability of raw materials; compliance with government regulations, including environmental regulations; and the ability to maintain adequate liquidity and financing sources. A detailed discussion of these and other factors that may affect the Company's future results is contained in AMETEK's filings with the U.S. Securities and Exchange Commission, including its most recent reports on Form 10-K, 10-Q and 8-K. AMETEK disclaims any intention or obligation to update or revise any forward-looking statements, unless required by the securities laws to do so.

Item 4. Controls and Procedures

The Company maintains a system of disclosure controls and procedures that is designed to provide reasonable assurance that information, which is required to be disclosed, is accumulated and communicated to management in a timely manner. Under the supervision and with the participation of our management, including the Company's principal executive officer and principal financial officer, we have evaluated the effectiveness of our system of disclosure controls and procedures as required by Exchange Act Rule 13a-15(b) as of June 30, 2017. Based on that evaluation, the Company's principal executive officer and principal financial officer concluded that the Company's disclosure controls and procedures are effective at the reasonable assurance level.

Such evaluation did not identify any change in the Company's internal control over financial reporting during the quarter ended June 30, 2017 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.



PART II. OTHER INFORMATION

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

(c) Purchase of equity securities by the issuer and affiliated purchasers.

The following table reflects purchases of AMETEK, Inc. common stock by the Company during the three months ended June 30, 2017:

Period	Total Number of Shares Purchased (1)(2)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (2)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan
April 1, 2017 to April 30, 2017		\$		\$ 375,422,375
May 1, 2017 to May 31, 2017	88,402	59.97	88,402	370,120,543
June 1, 2017 to June 30, 2017		—		370,120,543
Total	88,402	59.97	88,402	

(1) Represents shares surrendered to the Company to satisfy tax withholding obligations in connection with employees' share-based compensation awards.

(2) Consists of the number of shares purchased pursuant to the Company's Board of Directors \$400 million authorization for the repurchase of its common stock announced in November 2016. Such purchases may be effected from time to time in the open market or in private transactions, subject to market conditions and at management's discretion.

Item 6.	Exhibits
Exhibit Number	Description
31.1*	Certification of Chief Executive Officer, Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer, Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer, Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer, Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.

* Filed 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.

AMETEK, Inc. (Registrant)

By: /s/ THOMAS M. MONTGOMERY

Thomas M. Montgomery Senior Vice President – Comptroller (Principal Accounting Officer)

August 2, 2017

CERTIFICATIONS

I, David A. Zapico, certify that:

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

Date: August 2, 2017

/s/ DAVID A. ZAPICO

David A. Zapico Chairman of the Board and Chief Executive Officer

CERTIFICATIONS

I, William J. Burke, certify that:

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

Date: August 2, 2017

/s/ WILLIAM J. BURKE

William J. Burke Executive Vice President – Chief Financial Officer & Treasurer

AMETEK, Inc.

Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of AMETEK, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David A. Zapico, Chairman of the Board and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(b) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ DAVID A. ZAPICO

David A. Zapico Chairman of the Board and Chief Executive Officer

Date: August 2, 2017

A signed original of this written statement required by Section 906 has been provided to AMETEK, Inc. and will be retained by AMETEK, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

AMETEK, Inc.

Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of AMETEK, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, William J. Burke, Executive Vice President – Chief Financial Officer & Treasurer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(b) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ WILLIAM J. BURKE William J. Burke Executive Vice President – Chief Financial Officer & Treasurer

Date: August 2, 2017

A signed original of this written statement required by Section 906 has been provided to AMETEK, Inc. and will be retained by AMETEK, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.