ASTEC INDUSTRIES INC Form 10-Q August 07, 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 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 001-11595

Astec Industries, Inc. (Exact name of registrant as specified in its charter)

Tenne62e0873631 (State or other Identification No.) jurisdiction of incorporation or organization)

1725 Shepherd Road, 37421 Chattanooga, Tennessee (Addrézip Code) of

```
principal executive offices)
```

(423) 899-5898 (Registrant's telephone number, including area code)

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.

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).

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. (Check one): Large

Accelerated Filer

ý

```
Non-accelerated
filer
(Do
not
check
if a
smaller Reporting Company
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 ý
1

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

Class Outstanding at July 24, 2017 Common Stock, par value \$0.20 23,069,248 2

# ASTEC INDUSTRIES, INC.

**INDEX** 

### PART I - Financial Information

<u>Item 1. Financial Statements (unaudited)</u>

Condensed Consolidated Balance Sheets as of June 30, 2017 and December 31, 2016

<u>Condensed Consolidated Statements of Income for the Three and Six Months Ended June 30.</u>

2017 and 2016

<u>Condensed Consolidated Statements of Comprehensive Income for the Three and Six Months Ended</u>

June 30, 2017 and 2016

<u>Condensed Consolidated Statements of Cash Flows for the Six Months Ended June 30.</u> 2017

and 2016

Condensed Consolidated Statement of Equity for the Six Months Ended June 30, 2017

Notes to Unaudited Condensed Consolidated Financial Statements

<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Item 4. Controls and Procedures

PART II - Other Information

Item 1. Legal Proceedings

Item 1A. Risk Factors

Item 6. Exhibits

### PART I -- FINANCIAL INFORMATION

# Item 1. Financial Statements

Astec Industries, Inc.

Condensed Consolidated Balance Sheets

(in thousands)

(unaudited)

(unusites)	June 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$52,107	\$82,371
Investments	2,031	1,024
Trade receivables	143,479	106,659
Other receivables	5,827	4,014
Inventories	381,323	360,404
Prepaid expenses and other	26,320	22,361
Total current assets	611,087	576,833
Property and equipment, net	182,205	180,538
Investments	14,028	13,965
Goodwill	41,647	40,804
Other long-term assets	30,018	31,461
Total assets	\$878,985	\$843,601
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt	\$	\$4,632
Current maturities of long-term debt	2,572	2,538
Accounts payable	65,188	57,297
Income tax payable	474	747
Accrued product warranty	14,269	13,156
Customer deposits	45,916	39,102
Accrued payroll and related liabilities	21,247	25,693
Accrued loss reserves	2,897	2,852
Other current liabilities	23,295	22,844
Total current liabilities	175,858	168,861
Long-term debt	2,763	4,116
Deferred income tax liabilities	1,763	1,669
Other long-term liabilities	20,292	20,114
Total liabilities	200,676	194,760
Shareholders' equity	677,175	647,830
Non-controlling interest	1,134	1,011
Total equity	678,309	648,841
Total liabilities and equity	\$878,985	\$843,601

See Notes to Unaudited Condensed Consolidated Financial Statements

Astec Industries, Inc.
Condensed Consolidated Statements of Income
(in thousands, except per share data)
(unaudited)

	Three Mor	nths Ended	Six Months Ended		
	June 30,		June 30,		
	2017 2016		2017	2016	
Net sales	\$301,909	\$294,394	\$620,310	\$573,116	
Cost of sales	236,385	220,942	479,014	427,708	
Gross profit	65,524	73,452	141,296	145,408	
Selling, general, administrative and engineering expenses	44,220	44,961	97,342	88,766	
Income from operations	21,304	28,491	43,954	56,642	
Interest expense	185	326	450	793	
Other income, net of expenses	261	276	773	819	
Income from operations before income taxes	21,380	28,441	44,277	56,668	
Income taxes	7,021	10,300	14,838	20,849	
Net income	14,359	18,141	29,439	35,819	
Net loss attributable to non-controlling interest	(61	(51)	(101)	(116)	
Net income attributable to controlling interest	\$14,420	\$18,192	\$29,540	\$35,935	
Earnings per common share					
Net income attributable to controlling interest:					
Basic	\$0.63	\$0.79	\$1.28	\$1.56	
Diluted	\$0.62	\$0.79	\$1.27	\$1.55	
Weighted average number of common shares outstanding:					
Basic	23,026	22,999	23,020	22,982	
Diluted	23,183	23,135	23,179	23,135	
Dividends declared per common share	\$0.10	\$0.10	\$0.20	\$0.20	

See Notes to Unaudited Condensed Consolidated Financial Statements

Astec Industries, Inc. Condensed Consolidated Statements of Comprehensive Income (in thousands) (unaudited)

	Three Months					
	Ended		Six Mont	Six Months Ended		
	June 30,		June 30,			
	2017	2016	2017	2016		
Net income	\$14,359	\$18,141	\$29,439	\$35,819		
Other comprehensive income (loss):						
Income tax benefit on change in unrecognized pension and post-						
retirement benefit costs		(111)		(111)		
Foreign currency translation adjustments	1,530	(2,017)	3,560	(287)		
Income tax provision on foreign currency translation adjustments		(394)		(728)		
Other comprehensive income (loss)	1,530	(2,522)	3,560	(1,126)		
Comprehensive income	15,889	15,619	32,999	34,693		
Comprehensive income (loss) attributable to non-controlling interest	(132)	14	(124)	74		
Comprehensive income attributable to controlling interest	\$16,021	\$15,605	\$33,123	\$34,619		

See Notes to Unaudited Condensed Consolidated Financial Statements

Astec Industries, Inc. Condensed Consolidated Statements of Cash Flows (in thousands) (unaudited)

	Six Months Ended		
	June 30,	• • • •	
~ . ~	2017	2016	
Cash flows from operating activities:		****	
Net income	\$29,439	\$35,819	
Adjustments to reconcile net income to net cash provided			
(used) by operating activities:			
Depreciation and amortization	12,777	-	
Provision for doubtful accounts	89	320	
Provision for warranties	8,248		
Deferred compensation provision (benefit)	(758)		
Stock-based compensation	1,814		
Deferred income tax benefit		(3,353)	
Gain on disposition of fixed assets	(197)	(97)	
Distributions to SERP participants	(123)	(92)	
Change in operating assets and liabilities:			
Sale (purchase) of trading securities, net	(55)	(1,106)	
Trade and other receivables	(38,551)	(25,782)	
Inventories	(20,919)	5,299	
Prepaid expenses	3,502	(6,116)	
Other assets	(186)	1,536	
Accounts payable	7,662	6,497	
Accrued product warranty	(7,184)	(5,569)	
Customer deposits	6,813	22,357	
Prepaid and income taxes payable, net	(7,847)	4,704	
Other	(3,331)	7,531	
Net cash provided (used) by operating activities	(9,052)	64,053	
Cash flows from investing activities:			
Expenditures for property and equipment	(10,846)	(13,265)	
Proceeds from sale of property and equipment	211	144	
Other	(561)	(121)	
Net cash used by investing activities	(11,196)	(13,242)	
Cash flows from financing activities:			
Payment of dividends	(4,613)	(4,608)	
Borrowings under bank loans		1,339	
Repayments of bank loans	(5,929)	(2,337)	
Sale (purchase) of Company shares held by SERP, net	159	(97)	
Withholding tax paid upon vesting of restricted stock units	(501)	(1,022)	
Purchase of subsidiary shares	(31)	(724)	
Net cash used by financing activities	(10,915)	(7,449)	
Effect of exchange rates on cash	899	49	
Net increase (decrease) in cash and cash equivalents	(30,264)	43,411	
Cash and cash equivalents, beginning of period	82,371	25,062	
Cash and cash equivalents, end of period	\$52,107	\$68,473	

See Notes to Unaudited Condensed Consolidated Financial Statements

-

Astec Industries, Inc. Condensed Consolidated Statement of Equity For the Six Months Ended June 30, 2017 (in thousands) (unaudited)

	Common Stock Shares	Common Stock Amount	Additional Paid-in- Capital	Accum-ulate Other Compre- hensive Loss	Company Shares Held by SERP	Retained Earnings	Non-controlling Interest	Total Equity
Balance, December								
31, 2016	23,046	\$ 4,609	\$139,970	\$ (31,562	) \$ (1,958 )		\$ 1,011	\$648,841
Net income						29,540	(101)	29,439
Other comprehensive income				3,560				3,560
Change in ownership percentage of							41	
subsidiary						 (4 (10 )	41	41
Dividends declared Stock-based			5			(4,618)		(4,613)
compensation			1,200					1,200
Stock issued under								
incentive plans Withholding tax	23	5	(5)					
paid upon vesting of RSUs			(501)					(501)
SERP transactions,								
net			162		(3)			159
Other							183	183
Balance, June								
30, 2017	23,069	\$ 4,614	\$140,831	\$ (28,002	) \$ (1,961 )	\$561,693	\$ 1,134	\$678,309

See Notes to Unaudited Condensed Consolidated Financial Statements

#### ASTEC INDUSTRIES, INC.

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Dollar and share amounts in thousands, except per share amounts, unless otherwise specified)

### Note 1. Significant Accounting Policies

#### **Basis of Presentation**

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X promulgated under the Securities Exchange Act of 1934. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included. Operating results for the six-month period ended June 30, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017. It is suggested that these unaudited condensed consolidated financial statements be read in conjunction with the financial statements and the notes thereto included in the Astec Industries, Inc. Annual Report on Form 10-K for the year ended December 31, 2016.

The unaudited condensed consolidated balance sheet as of December 31, 2016 has been derived from the audited consolidated financial statements at that date but does not include all of the information and footnotes required by U.S. GAAP for complete financial statements.

Dollar and share amounts shown are in thousands, except per share amounts, unless otherwise specified.

#### **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", which supersedes existing revenue guidance under U.S. GAAP. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The implementation of this new standard will require companies to use more judgment and to make more estimates than under current guidance. The standard, as amended, is effective for public companies for annual periods beginning after December 15, 2017. The Company plans to adopt the new standard effective January 1, 2018. Company management reviewed documentation of revenue streams received from its 16 manufacturing subsidiaries to assist in its effort to determine the effect the new standard will have on its financial reporting. A subsequent meeting was held in September 2016 with Company management, controllers of the manufacturing subsidiaries and an outside revenue expert to discuss the information in an effort to identify areas where a change in timing of revenue recognition may be required under the new guidance. Additional documentation is currently being assimilated for final review and evaluation in the next several months. Therefore, the Company has not yet determined the extent of the impact adoption of this new standard will have on the Company's financial position or results of operations.

In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments - Overall (Subtopic 825-10)", which requires, among other things, equity investments with readily determinable fair values, except those accounted for under the equity method of accounting or those that result in consolidation of the investee, to be measured at fair value with changes in fair value recognized in net income. The standard is effective for public companies in fiscal years beginning after December 15, 2017, and the Company expects to adopt the standard effective January 1, 2018. The Company does not expect the adoption of this standard to have a material impact on the Company's financial position or results of operations.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)", which significantly changes the accounting for operating leases by lessees. The accounting applied by lessors is largely unchanged from that applied under previous guidance. The new guidance requires lessees to recognize lease assets and lease liabilities in the balance sheet, initially measured at the present value of the lease payments, for leases which were classified as operating leases under previous guidance. Lease cost included in the statement of income will be calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. Lessees may make an accounting policy election to exclude leases with a term of 12 months or less from the requirement to record related assets and liabilities. The new standard is effective for public companies for fiscal years beginning after December 15, 2018. The Company plans to adopt the new standard effective January 1, 2019. The Company does not expect the adoption of this standard to have a material impact on its results of operations; however, the Company has not determined the impact the adoption of this new standard will have on its financial position.

In March 2016, the FASB issued ASU No. 2016-08, "Revenue from Contracts with Customers (Topic 606)", which does not change the core principles of ASU No. 2014-09 discussed above, but rather clarifies the implementation guidance in order to eliminate the potential for diversity in practice arising from inconsistent application of the principal versus agent guidance. Under the new guidance, when an entity determines it is a principal in a transaction, the entity recognizes revenue in the gross amount of consideration; however in transactions where an entity determines it in an agent, the entity recognizes revenue in the amount of any fee or commission to which it expects to be entitled. The standard is effective for public companies for annual periods beginning after December 15, 2017. The Company plans to adopt the new standard effective January 1, 2018. As discussed above, the Company has not yet determined what impact, if any, the adoption of this new standard will have on the Company's financial position or results of operations.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments – Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments". The standard changes how credit losses are measured for most financial assets and certain other instruments that currently are not measured through net income. The standard will require an expected loss model for instruments measured at amortized cost as opposed to the current incurred loss approach. In valuing available for sale debt securities, allowances will be required to be recorded, rather than the current approach of reducing the carrying amount, for other than temporary impairments. A cumulative adjustment to retained earnings is to be recorded as of the beginning of the period of adoption to reflect the impact of applying the provisions of the standard. The standard is effective for public companies for periods beginning after December 15, 2019 and the Company expects to adopt the new standard as of January 1, 2020. The Company has not yet determined what impact, if any, the adoption of this new standard will have on the Company's financial position or results of operations.

In August 2016, the FASB issued ASU No. 2016-15, "Classification of Certain Cash Receipts and Cash Payments (a consensus of the Emerging Issues Task Force)" which clarifies how certain cash receipts and cash payments should be presented on the statement of cash flows. The statement also addresses how the predominance principle should be applied when cash payments have aspects of more than one class of cash flows. The standard is effective for public companies in fiscal years beginning after December 15, 2017, and the Company expects to adopt the standard effective January 1, 2018. The Company does not expect the adoption of this new standard to have a material impact on the Company's statement of cash flows.

In October 2016, the FASB issued ASU No. 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory," which requires companies to account for the income tax effects of intercompany sales and transfers of assets other than inventory, such as intangible assets, when the transfer occurs. This is a change from current guidance, which requires companies to defer the income tax effects of intercompany transfers of assets until the asset has been sold to an outside party or otherwise recognized by being depreciated, amortized, or impaired. The new guidance will require companies to defer the income tax effects of only intercompany transfers of inventory. The standard is effective for public companies in fiscal years beginning after December 15, 2018. Early adoption is permitted as of the beginning of an annual period and requires companies to apply a modified retrospective approach. The Company plans to adopt

the new standard effective January 1, 2019. The Company has not yet determined what impact the adoption of this new standard will have on the Company's financial position or results of operations.

In January 2017, the FASB issued ASU No. 2017-01, "Business Combinations (Topic 805), Clarifying the Definition of a Business," which provides additional guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The standard is effective for public companies for annual or interim periods beginning after December 15, 2017. The Company plans to adopt the new standard effective January 1, 2018. The Company does not expect the application of this standard to have a material impact on its financial position, results of operations or cash flows.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles-Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment," which eliminates Step 2 from the goodwill impairment test for public companies. Currently, Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. The new guidance stipulates that an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An impairment charge would be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value, up to the amount of goodwill allocated to the reporting unit. The standard is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019 with early adoption permitted. The Company plans to early adopt this standard for its annual impairment testing to be performed as of December 31, 2017. The Company does not expect the application of this standard to have a material impact on its financial position, results of operations or cash flows.

#### Note 2. Earnings per Share

Basic earnings per share are determined by dividing earnings by the weighted average number of common shares outstanding during each period. Diluted earnings per share include the potential dilutive effect of restricted stock units and shares held in the Company's Supplemental Executive Retirement Plan.

The following table sets forth the computation of net income attributable to controlling interest and the number of basic and diluted shares used in the computation of earnings per share:

	Three Months				
	Ended		Six Mont	hs Ended	
	June 30,		June 30,		
	2017	2016	2017	2016	
Numerator:					
Net income attributable to controlling interest	\$14,420	\$18,192	\$29,540	\$35,935	
Denominator:					
Denominator for basic earnings per share	23,026	22,999	23,020	22,982	
Effect of dilutive securities:					
Restricted stock units	93	71	97	89	
Supplemental Executive Retirement Plan	64	65	62	64	
Denominator for diluted earnings per share	23,183	23,135	23,179	23,135	

#### Note 3. Receivables

Receivables are net of allowances for doubtful accounts of \$1,463 and \$1,511 as of June 30, 2017 and December 31, 2016, respectively.

#### Note 4. Inventories

Inventories consist of the following:

June 30, December 2017 31,

		2016
Raw materials and parts	\$141,103	\$137,763
Work-in-process	135,909	115,613
Finished goods	79,217	84,898
Used equipment	25,094	22,130
Total	\$381,323	\$360,404

Raw material inventory is comprised of purchased steel and other purchased items for use in the manufacturing process or held for sale for the after-market parts business. The category also includes the manufacturing cost of completed equipment sub-assemblies produced for either integration into equipment manufactured at a later date or for sale in the Company's after-market parts business.

Work-in-process inventory consists of the value of materials, labor and overhead incurred to date in the manufacturing of incomplete equipment or incomplete equipment sub-assemblies being produced.

Finished goods inventory consists of completed equipment manufactured for sale to customers.

Used equipment inventory consists of equipment accepted in trade or purchased on the open market. The category also includes equipment rented to prospective customers on a short-term or month-to-month basis. Used equipment is valued at the lower of acquired or trade-in cost or net realizable value determined on each separate unit.

Inventories are valued at the lower of cost (first-in, first-out) or net realizable value, which requires the Company to make specific estimates, assumptions and judgments in determining the amount, if any, of reductions in the valuation of inventories to their net realizable values. The net realizable values of the Company's products are impacted by a number of factors, including changes in the price of steel, competitive sales pricing, quantities of inventories on hand, the age of the individual inventory items, market acceptance of the Company's products, actions by our competitors, the condition of our used and rental inventory and general economic factors. Once an inventory item's value has been deemed to be less than cost, a net realizable value allowance is calculated and a new "cost basis" for that item is effectively established. This new cost is retained for that item until such time as the item is disposed of or the Company determines that an additional write-down is necessary. Additional write-downs may be required in the future based upon changes in assumptions due to general economic downturns in the markets in which the Company operates, changes in competitor pricing, new product design or other technological advances introduced by the Company or its competitors and other factors unique to individual inventory items.

The most significant component of the Company's inventory is steel. A significant decline in the market price of steel could result in a decline in the market value of the equipment or parts we sell. During periods of significant declining steel prices, the Company reviews the valuation of its inventories to determine if reductions are needed in the recorded value of inventory on hand to its net realizable value.

The Company reviews the individual items included in its finished goods, used equipment and rental equipment inventory on a model-by-model or unit-by-unit basis to determine if any item's net realizable value is below its carrying value. This analysis is expanded to include items in work-in-process and raw material inventory if factors indicate those items may also be impacted. In performing this review, judgments are made and, in addition to the factors discussed above, additional consideration is given to the age of the specific items of used or rental inventory, prior sales offers or lack thereof, the physical condition of the specific items and general market conditions for the specific items. Additionally, an analysis of raw material inventory is performed to calculate reserves needed for obsolete inventory based upon quantities of items on hand, the age of those items and their recent and expected future usage or sale.

When the Company determines that the value of inventory has become impaired through damage, deterioration, obsolescence, changes in price levels, excessive levels of inventory or other causes, the Company reduces the carrying value to the net realizable value based on estimates, assumptions and judgments made from the information available at that time. Abnormal amounts of idle facility expense, freight, handling cost and wasted materials are recognized as current period charges.

Note 5. Property and Equipment

Property and equipment is stated at cost, less accumulated depreciation of \$230,041 and \$220,444 as of June 30, 2017 and December 31, 2016, respectively.

#### Note 6. Fair Value Measurements

The Company has various financial instruments that must be measured at fair value on a recurring basis, including marketable debt and equity securities held by Astec Insurance Company ("Astec Insurance"), the Company's captive insurance company, and marketable equity securities held in an unqualified Supplemental Executive Retirement Plan ("SERP"). The obligations of the Company associated with the financial assets held in the SERP also constitute a liability of the Company for financial reporting purposes and are included in other long-term liabilities in the accompanying condensed consolidated balance sheets. The Company's subsidiaries also occasionally enter into foreign currency exchange contracts to mitigate exposure to fluctuations in currency exchange rates.

The carrying amount of cash and cash equivalents, trade receivables, other receivables, revolving debt, accounts payable and long-term debt approximates their fair value because of their short-term nature and/or interest rates associated with the instruments. Investments are carried at their fair value based on quoted market prices for identical or similar assets or, where no quoted prices exist, other observable inputs for the asset. The fair values of foreign currency exchange contracts are based on quotations from various banks for similar instruments using models with market based inputs.

Financial assets and liabilities are categorized based upon the level of judgment associated with the inputs used to measure their fair value. The inputs used to measure the fair value are identified in the following hierarchy:

- Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities.

  Unadjusted quoted prices in active markets for similar assets or liabilities; or unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active;
- Level 2 

  or

  inputs other than quoted prices that are observable for the asset or liability.

  Inputs reflect management's best estimate of what market participants would use in pricing
- Level 3 the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

As indicated in the tables below (which excludes the Company's pension assets), the Company has determined that all of its financial assets and liabilities as of June 30, 2017 and December 31, 2016 are Level 1 and Level 2 in the fair value hierarchy as defined above:

	June 30, 2017				
		Level			
	Level 1	2	Total		
Financial Assets:					
Trading equity securities:					
SERP money market fund	\$385	\$	\$385		
SERP mutual funds	3,892		3,892		
Preferred stocks	364		364		
Trading debt securities:					
Corporate bonds	5,673		5,673		
Municipal bonds		2,512	2,512		
Floating rate notes	401		401		
Asset backed securities		588	588		
U.S. Treasury notes	541		541		
Other		1,703	1,703		
Total financial assets	\$11,256	\$4,803	\$16,059		

Financial Liabilities:

SERP liabilities \$-- \$7,814 \$7,814 Derivative financial instruments -- 161 161 Total financial liabilities \$-- \$7,975 \$7,975

	December 31, 2016				
	Level	Level			
	1	2	Total		
Financial Assets:					
Trading equity securities:					
SERP money market fund	\$92	\$	\$92		
SERP mutual funds	3,335		3,335		
Preferred stocks	475		475		
Trading debt securities:					
Corporate bonds	5,413		5,413		
Municipal bonds		2,248	2,248		
Floating rate notes	118		118		
U.S. Treasury note	388		388		
Asset backed securities		637	637		
Other		2,283	2,283		
Derivative financial instruments		144	144		
Total financial assets	\$9,821	\$5,312	\$15,133		
Financial Liabilities:					
SERP liabilities	\$	\$7,882	\$7,882		
Derivative financial instruments		89	89		
Total financial liabilities	\$	\$7,971			

The Company reevaluates the volume of trading activity for each of its investments at the end of each quarter and adjusts the level within the fair value hierarchy as needed. No investments changed hierarchy levels from December 31, 2016 to June 30, 2017.

The trading equity investments noted above are valued at their fair value based on their quoted market prices, and the debt securities are valued based upon a mix of observable market prices and model driven prices derived from a matrix of observable market prices for assets with similar characteristics obtained with the assistance of a nationally recognized third party pricing service. Additionally, a significant portion of the SERP's investments in trading equity securities are in money market and mutual funds. As these money market and mutual funds are held in a SERP, they are also included in the Company's liability under its SERP.

Trading debt securities are comprised of marketable debt securities held by Astec Insurance. Astec Insurance has an investment strategy that focuses on providing regular and predictable interest income from a diversified portfolio of high-quality fixed income securities.

Net unrealized gains or losses incurred on investments held amounted to a net gain of \$123 as of June 30, 2017 and a net loss of \$107 as of December 31, 2016.

#### Note 7. Debt

On April 12, 2017, the Company and certain of its subsidiaries entered into an amended and restated credit agreement whereby Wells Fargo extended to the Company an unsecured line of credit of up to \$100,000, including a sub-limit for letters of credit of up to \$30,000. There were no borrowings outstanding under the agreement (or the previous agreement) at any time during the six-month period ended June 30, 2017. Letters of credit totaling \$8,446, including \$6,200 of letters of credit issued to banks in Brazil to secure the local debt of Astec do Brasil Fabricacao de Equipamentos Ltda. ("Astec Brazil"), were outstanding under the credit facility as of June 30, 2017, resulting in additional borrowing ability of \$91,554 under the credit facility. The credit agreement has a five-year term expiring in

April 2022. Borrowings under the agreement are subject to an interest rate equal to the daily one-month LIBOR rate plus a 0.75% margin, resulting in a rate of 1.98% as of June 30, 2017. The unused facility fee is 0.125%. Interest only payments are due monthly. The amended and restated credit agreement contains certain financial covenants, including provisions concerning required levels of annual net income and minimum tangible net worth.

The Company's South African subsidiary, Osborn Engineered Products SA (Pty) Ltd ("Osborn"), has a credit facility of \$7,266 with a South African bank to finance short-term working capital needs, as well as to cover performance letters of credit, advance payment and retention guarantees. As of June 30, 2017, Osborn had no outstanding borrowings but had \$418 in performance, advance payment and retention guarantees outstanding under the facility. The facility has been guaranteed by Astec Industries, Inc., but is otherwise unsecured. A 0.75% unused facility fee is charged if less than 50% of the facility is utilized. As of June 30, 2017, Osborn had available credit under the facility of \$6,848. The interest rate is 0.25% less than the South Africa prime rate, resulting in a rate of 10.25% as of June 30, 2017.

The Company's Brazilian subsidiary, Astec Brazil, has outstanding working capital loans totaling \$4,439 as of June 30, 2017 from three Brazilian banks with interest rates ranging from 10.4% to 11.0%. The loans' maturity dates range from November 2018 to April 2024 and the debts are secured by Astec Brazil's manufacturing facility and also by letters of credit totaling \$6,200 issued by Astec Industries, Inc. Additionally, Astec Brazil has various 5-year equipment financing loans outstanding with two Brazilian banks in the aggregate of \$896 as of June 30, 2017 that have interest rates ranging from 3.5% to 16.3%. These equipment loans have maturity dates ranging from September 2018 to April 2020. Astec Brazil's loans are included in the accompanying condensed consolidated balance sheets as current maturities of long-term debt (\$2,572) and long-term debt (\$2,763) as of June 30, 2017.

#### Note 8. Product Warranty Reserves

The Company warrants its products against manufacturing defects and performance to specified standards. The warranty period and performance standards vary by market and uses of its products, but generally range from three months to two years or up to a specified number of hours of operation. The Company estimates the costs that may be incurred under its warranties and records a liability at the time product sales are recorded. The product warranty liability is primarily based on historical claim rates, nature of claims and the associated cost.

Changes in the Company's product warranty liability for the three and six-month periods ended June 30, 2017 and 2016 are as follows:

	Three Months				
	Ended		Six Months Ended		
	June 30,		June 30,		
	2017	2016	2017	2016	
Reserve balance, beginning of the period	\$13,719	\$10,397	\$13,156	\$9,100	
Warranty liabilities accrued	4,252	4,685	8,248	8,300	
Warranty liabilities settled	(3,724)	(3,212)	(7,184)	(5,569)	
Other	22	(12)	49	27	
Reserve balance, end of the period	\$14,269	\$11,858	\$14,269	\$11,858	

### Note 9. Accrued Loss Reserves

The Company records reserves for losses related to known workers' compensation and general liability claims that have been incurred but not yet paid or are estimated to have been incurred but not yet reported to the Company. The undiscounted reserves are actuarially determined based on the Company's evaluation of the type and severity of individual claims and historical information, primarily its own claims experience, along with assumptions about future events. Changes in assumptions, as well as changes in actual experience, could cause these estimates to change in the future. Total accrued loss reserves were \$8,220 as of June 30, 2017 and \$7,892 as of December 31, 2016, of which \$5,323 and \$5,040 were included in other long-term liabilities as of June 30, 2017 and December 31, 2016, respectively.

Note 10. Income Taxes

The Company's combined effective income tax rate was 32.8% and 36.2% for the three-month periods ended June 30, 2017 and 2016, respectively. The Company's combined effective income tax rate was 33.5% and 36.8% for the six-month periods ended June 30, 2017 and 2016, respectively. The Company's effective tax rate for the three-month and six-month periods ended June 30, 2017 and June 30, 2016 include the effect of state income taxes and other discrete items as well as a benefit for research and development credits.

The Company's recorded liability for uncertain tax positions as of June 30, 2017 has increased by approximately \$53 as compared to December 31, 2016 due to additional taxes and interest on existing reserves.

### Note 11. Segment Information

The Company has three reportable segments, each of which is comprised of multiple business units that offer similar products and services and meet the requirements for aggregation. A brief description of each segment is as follows:

Infrastructure Group - This segment consists of five business units, three of which design, engineer, manufacture and market a complete line of portable, stationary and relocatable hot-mix asphalt plants, wood pellet plants, asphalt pavers, material transfer vehicles, stabilizers, milling machines, paver screeds and related ancillary equipment. The other two business units in this segment primarily operate as Company-owned dealers in the foreign countries in which they are domiciled. These two business units sell, service and install products produced by the manufacturing subsidiaries of the Company, and a majority of their sales are to customers in the infrastructure industry. The principal purchasers of the products produced by this group are asphalt producers, highway and heavy equipment contractors, wood pellet processors and foreign and domestic governmental agencies.

Aggregate and Mining Group - This segment consists of eight business units that design, engineer, manufacture and market a complete line of jaw crushers, cone crushers, horizontal shaft impactors, vertical shaft impactors, material handling, roll rock crushers and stationary rockbreaker systems, vibrating feeders and high frequency vibrating screens, conveyors, inclined, vertical and horizontal screens and sand classifying and washing equipment. The principal purchasers of products produced by this group are distributors, open mine operators, quarry operators, port and inland terminal operators, highway and heavy equipment contractors and foreign and domestic governmental agencies.

Energy Group - This segment consists of five business units that design, engineer, manufacture and market a complete line of drilling rigs for the oil and gas, geothermal and water well industries, high pressure diesel pump trailers for fracking and cleaning oil and gas wells, commercial and industrial burners, combustion control systems, a variety of industrial heaters to fit a broad range of applications including heating equipment for refineries, roofing material plants, chemical processing, rubber plants, oil sands and energy related processing, heat transfer processing equipment, thermal fluid storage tanks, waste heat recovery equipment, whole-tree pulpwood and biomass chippers and horizontal grinders. The principal purchasers of products produced by this group are oil, gas and water well drilling industry contractors, processors of oil, gas and biomass for energy production and contractors in the construction and demolition recycling markets. This group includes the operations of Power Flame Incorporated, which was acquired in August 2016.

Corporate - This category consists of business units that do not meet the requirements for separate disclosure as an operating segment or inclusion in one of the other reporting segments and includes the Company's parent company, Astec Industries, Inc., and Astec Insurance. The Company evaluates performance and allocates resources to its operating segments based on profit or loss from operations before U.S. federal income taxes and corporate overhead and thus these costs are included in the Corporate category.

The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies. Intersegment sales and transfers are valued at prices comparable to those for unrelated parties.

#### **Segment Information:**

	Three Mon	ths Ended Jur	ne 30, 2017		
		Aggregate	•		
		and			
	InfrastructureMining		Energy		
	Group	Group	Group	Corporate	Total
Net sales to external					
customers	\$143,106	\$107,118	\$51,685	\$	\$301,909
Intersegment sales	4,434	6,016	7,016		17,466

Gross profit	26,820		25,791		12,864	1	49	65,524	
Gross profit percent	18.7	%	24.1	%	24.9	%		21.7	%
Segment profit (loss)	\$9,893		\$11,367		\$3,165		\$(10,260	) \$14,165	

α.	N / /1	T 1 1	T	20	2017
V1V	Months	Hnded	liine	4(1)	7011/
DIA	monus	Liiucu	June	20.	201 <i>/</i>

Aggregate	_

_		-1	
я	n	а	
u		·	

		anu			
	InfrastructureMining		Energy	Energy	
	Group	Group	Group	Corporate	Total
Net sales to external					
customers	\$308,349	\$207,731	\$104,230	\$	\$620,310
Intersegment sales	8,459	9,452	12,607		30,518
Gross profit	64,621	50,814	25,751	110	141,296
Gross profit percent	21.0 %	24.5	% 24.7 %		22.8 %
Segment profit (loss)	\$28,073	\$19,795	\$5,894	\$(24,689)	\$29,073

# Three Months Ended June 30, 2016

### Aggregate

and

and						
	Infrastructure Mining		Energy	Energy		
	Group	Group	Group	Corporate	Total	
Net sales to external						
customers	\$152,476	\$ 99,085	\$42,833	\$ -	\$294,394	
Intersegment sales	4,511	5,945	6,144	-	16,600	
Gross profit	36,583	26,141	10,514	214	73,452	
Gross profit percent	24.0 %	26.4	% 24.5 %	-	25.0 %	6
Segment profit (loss)	\$19,673	\$ 10,947	\$2,626	\$(14,912)	\$18,334	

## Six Months Ended June 30, 2016

# Aggregate

		and				
	InfrastructureMining		Energy	Energy		
	Group	Group	Group	Corporate	Total	
Net sales to external						
customers	\$305,590	\$191,573	\$75,953	\$ -	\$573,116	
Intersegment sales	7,684	10,796	9,610	-	28,090	
Gross profit	76,420	51,289	17,596	103	145,408	
Gross profit percent	25.0 %	26.8	% 23.2 %	-	25.4 %	
Segment profit (loss)	\$41,536	\$20,485	\$2,433	\$(29,137)	\$35,317	

A reconciliation of total segment profits to the Company's consolidated totals is as follows:

	Three Months Ended Six Months End			hs Ended
	June 30,		June 30,	iis Ziided
	2017	2016	2017	2016
Total segment profits	\$14,165	\$18,334	\$29,073	\$35,317
Recapture (elimination) of intersegment profit	194	(193)	366	502
Net income	14,359	18,141	29,439	35,819
Net loss attributable to non-controlling				
interest in subsidiaries	(61)	(51)	(101)	(116)
Net income attributable to controlling interest	\$14,420	\$18,192	\$29,540	\$35,935

#### Note 12. Contingent Matters

Certain customers have financed purchases of Company products through arrangements in which the Company is contingently liable for customer debt of \$3,256 as of June 30, 2017. The maximum potential amount of future payments for which the Company would be liable was equal to \$3,256 as of June 30, 2017. These arrangements also provide that the Company will receive the lender's full security interest in the equipment financed if the Company is required to fulfill its contingent liability under these arrangements. The Company has recorded a liability of \$469 related to these guarantees as of June 30, 2017.

In addition, the Company is contingently liable under letters of credit issued by Wells Fargo totaling \$8,446 as of June 30, 2017, including \$6,200 of letters of credit that guarantee certain Astec Brazil bank debt. The outstanding letters of credit expire at various dates through October 2020. As of June 30, 2017, the Company's foreign subsidiaries are contingently liable for a total of \$1,382 in performance letters of credit, advance payments and retention guarantees. The maximum potential amount of future payments under these letters of credit and guarantees for which the Company could be liable is \$9,828 as of June 30, 2017.

The Company is currently a party to various claims and legal proceedings that have arisen in the ordinary course of business. If management believes that a loss arising from such claims and legal proceedings is probable and can reasonably be estimated, the Company records the amount of the loss (excluding estimated legal fees) or the minimum estimated liability when the loss is estimated using a range and no point within the range is more probable than another. As management becomes aware of additional information concerning such contingencies, any potential liability related to these matters is assessed and the estimates are revised, if necessary. If management believes that a loss arising from such claims and legal proceedings is either (i) probable but cannot be reasonably estimated or (ii) reasonably possible but not probable, the Company does not record the amount of the loss, but does make specific disclosure of such matter. Based upon currently available information and with the advice of counsel, management believes that the ultimate outcome of its current claims and legal proceedings, individually and in the aggregate, will not have a material adverse effect on the Company's financial position, cash flows or results of operations. However, claims and legal proceedings are subject to inherent uncertainties and rulings unfavorable to the Company could occur. If an unfavorable ruling were to occur, there exists the possibility of a material adverse effect on the Company's financial position, cash flows or results of operations.

During 2004, the Company received notice from the Environmental Protection Agency ("EPA") that it may be responsible for a portion of the costs incurred in connection with an environmental cleanup in Illinois. The discharge of hazardous materials and associated cleanup relate to activities occurring prior to the Company's acquisition of Barber-Greene in 1986. The Company believes that over 300 other parties have received similar notices. At this time, the Company cannot predict whether the EPA will seek to hold the Company liable for a portion of the cleanup costs or the amount of any such liability. The Company has not recorded a liability with respect to this matter because no estimate of the amount of any such liability can be made at this time.

#### Note 13. Shareholders' Equity

Under the Company's long-term incentive plans, key members of management may be issued restricted stock units ("RSUs") each year based upon the annual financial performance of the Company and its subsidiaries. The number of RSUs granted to employees each year is determined based upon the performance of individual subsidiaries and consolidated annual financial performance. Generally, for RSUs granted through February 2016, each award will vest at the end of five years from the date of grant, or at the time a recipient retires after reaching age 65, if earlier. Awards granted in February 2017 and after will vest at the end of three years from the date of grant or at the time a recipient retires after reaching age 65, if earlier. Additional RSUs are granted to the Company's outside directors under the Company's Non-Employee Directors Compensation Plan with a one year vesting period.

A total of 30 and 76 RSUs vested during the six-month periods ended June 30, 2017 and 2016, respectively. The Company withheld 8 and 24 shares due to statutory payroll tax withholding requirements upon the vesting of the

RSUs in the first six months of 2017 and 2016, respectively, and used Company funds to remit the related required minimum withholding taxes to the various tax authorities. The vesting date fair value of the RSUs that vested during the first six months of 2017 and 2016 was \$1,975 and \$3,204, respectively. Compensation expense of \$1,498 and \$928 was recorded in the six-month periods ended June 30, 2017 and 2016, respectively, to reflect the fair value of RSUs granted (or anticipated to be granted for 2017 performance) to employees amortized over the portion of the vesting period occurring during the periods.

#### Note 14. Other Income, Net of Expenses

Other income, net of expenses for the three and six-month periods ended June 30, 2017 and 2016 is presented below:

	Three				
	Month	ıs	Six Months		
	Ended	l	Ended		
	June 30, J		June 3	June 30,	
	2017	2016	2017	2016	
Interest income	\$156	\$155	\$331	\$443	
Gain (loss) on investments	14	22	41	(15)	
License fee income	74	61	324	256	
Other	17	38	77	135	
Total	\$261	\$276	\$773	\$819	

#### Note 15. Derivative Financial Instruments

The Company is exposed to certain risks related to its ongoing business operations. The primary risk managed by using derivative instruments is foreign currency risk. From time to time the Company's foreign subsidiaries enter into foreign currency exchange contracts to mitigate exposure to fluctuations in currency exchange rates. The fair value of the derivative financial instrument is recorded on the Company's balance sheet and is adjusted to fair value at each measurement date. The changes in fair value are recognized in the consolidated statements of income in the current period. The Company does not engage in speculative transactions nor does it hold or issue financial instruments for trading purposes. The average U.S. dollar equivalent notional amount of outstanding foreign currency exchange contracts was \$9,642 during the six-month period ended June 30, 2017. The Company reported \$161 of derivative liabilities in other current liabilities at June 30, 2017. At December 31, 2016, the Company reported \$144 of derivative assets in other current assets and \$89 of derivative liabilities in other current liabilities. The Company recognized, as a component of cost of sales, net losses of \$278 and net gains of \$292 on the changes in fair value of derivative financial instruments in the three-month periods ended June 30, 2017 and 2016, respectively. The Company recognized, as a component of cost of sales, net losses of \$621 and net gains of \$165 on the changes in fair value of derivative financial instruments in the six-month periods ended June 30, 2017 and 2016, respectively. There were no derivatives that were designated as hedges at June 30, 2017.

#### Note 16. Business Combination

In August 2016, the Company acquired substantially all of the assets and certain liabilities of Power Flame Incorporated ("PFI") for a total purchase price of \$39,765. The purchase price was paid in cash with \$4,000 deposited into escrow for a period of time not to exceed two years pending final resolution of certain post-closing adjustments and any indemnification claims. The Company's allocation of the purchase price resulted in the recognition of \$12,632 of goodwill and \$17,990 of other intangible assets consisting of technology (19 year useful life), trade names (15 year useful life) and customer relationships (18 year useful life). The revenues and results of operations of PFI were not significant in relation to the Company's financial statements for the period ended December 31, 2016 and would not have been material on a proforma basis to any earlier period. PFI's operating results are included in the Energy Group beginning in the third quarter of 2016.

PFI, located in Parsons, Kansas, began operations in 1948 and manufactures and sells gas, oil and combination gas/oil and low NOx burners with outputs ranging from 400 thousand BTU's per hour to 120 million BTU's per hour as well as combustion control systems designed for commercial, industrial and process heating applications.

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

#### Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements contained anywhere in this Quarterly Report on Form 10-O that are not limited to historical information are considered forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and are sometimes identified by the words "will," "would," "should," "could," "may," "believes," "anticipates," "intends," "forecasts" and "expects" and similar expressions. Such forward-looking statements include, without limitation, statements regarding the Company's expected sales and results of operations during 2017, the Company's expected capital expenditures in 2017, the expected benefit and impact of financing arrangements, the ability of the Company to meet its working capital and capital expenditure requirements through June 30, 2018, the amount and impact of any current or future state or federal funding for transportation construction programs, the need for road improvements, the amount and impact of other public sector spending and funding mechanisms, changes in the economic environment as it affects the Company, the market confidence of customers and dealers, the Company being called upon to fulfill certain contingencies, the expected dates of granting of restricted stock units, changes in interest rates and the impact of such changes on the financial results of the Company, changes in the prices of steel and oil and the impact of such changes generally and on the demand for the Company's products, customer's buying decisions, the Company's business, the ability of the Company to offset future changes in prices in raw materials, the change in the strength of the dollar and the level of the Company's presence and sales in international markets, the impact that further development of domestic oil and natural gas production capabilities would have on the domestic economy and the Company's business, the seasonality of the Company's business, the Company's investments, the percentage of the Company's equipment sold directly to end users, the amount or value of unrecognized tax benefits, the impact of IRS tax regulations, payment of dividends by the Company, and the ultimate outcome of the Company's current claims and legal proceedings.

These forward-looking statements are based largely on management's expectations, which are subject to a number of known and unknown risks, uncertainties and other factors discussed in this Report and in other documents filed by the Company with the Securities and Exchange Commission, which may cause actual results, financial or otherwise, to be materially different from those anticipated, expressed or implied by the forward-looking statements. All forward-looking statements included in this document are based on information available to the Company on the date hereof, and the Company assumes no obligation to update any such forward-looking statements to reflect future events or circumstances.

The risks and uncertainties identified herein under the caption "Item 1A. Risk Factors" in Part II of this Report, elsewhere herein and in other documents filed by the Company with the Securities and Exchange Commission, including the Company's Annual Report on Form 10-K for the year ended December 31, 2016, should be carefully considered when evaluating the Company's business and future prospects.

#### Overview

The Company is a leading manufacturer and seller of equipment for the road building, aggregate processing, geothermal, water, oil and gas, and wood processing industries. The Company's businesses:

- design, engineer, manufacture and market equipment used in each phase of road building, including mining, equarrying and crushing the aggregate, mobile bulk and material handling solutions, producing asphalt or concrete, recycling old asphalt or concrete and applying the asphalt;
- design, engineer, manufacture and market additional equipment and components, including equipment for geothermal drilling, water, oil and natural gas drilling, industrial heat transfer, wood chipping and grinding, wood pellet processing, commercial and industrial burners, combustion control systems; and
- ·manufacture and sell replacement parts for equipment in each of its product lines.

The Company, as we refer to it herein, consists of a total of 20 companies that are consolidated in our financial statements, which includes 16 manufacturing companies, two companies that operate as dealers for the manufacturing companies, a captive insurance company and the parent company. The companies fall within three reportable operating segments: the Infrastructure Group, the Aggregate and Mining Group and the Energy Group.

Infrastructure Group- This segment consists of five business units, three of which design, engineer, manufacture and market a complete line of asphalt plants, asphalt pavers, wood pellet plants and related components and ancillary equipment. The two remaining companies in the Infrastructure Group primarily sell, service and install equipment produced by the manufacturing subsidiaries of the Company with the majority of sales to the infrastructure industry.

Aggregate and Mining Group- This segment consists of eight business units that design, manufacture and market heavy equipment and parts in the aggregate, metallic mining, quarrying, recycling, ports and bulk handling industries.

Energy Group- This segment consists of five business units that design, manufacture and market heaters, gas, oil and combination gas/oil burners, combustion control systems, drilling rigs, concrete plants, wood chippers and grinders, pump trailers, commercial and industrial burners, combustion control systems, storage equipment and related parts to the oil and gas, construction, and water well industries.

Individual Company subsidiaries included in the composition of the Company's segments are as follows:

- 1. Infrastructure Group Astec, Inc., Roadtec, Inc., Carlson Paving Products, Inc., Astec Australia, Pty Ltd and Astec Mobile Machinery GmbH.
- Aggregate and Mining Group Telsmith, Inc., Kolberg-Pioneer, Inc., Johnson Crushers International, Inc., Osborn
- 2. Engineered Products SA (Pty) Ltd, Breaker Technology, Inc., Astec Mobile Screens, Inc., Astec do Brasil Fabricacao de Equipamentos LTDA and Telestack Limited.
- 3. Energy Group Heatec, Inc., CEI, Inc., GEFCO, Inc., Peterson Pacific Corp. and Power Flame Incorporated (beginning in August 2016).

The Company also has one other category, Corporate, that contains the business units that do not meet the requirements for separate disclosure as a separate operating segment or inclusion in one of the other reporting segments. The business units in the Corporate category are Astec Insurance Company ("Astec Insurance" or "the captive") and Astec Industries, Inc., the parent company. These two companies provide support and corporate oversight for all the companies that fall within the reportable operating segments.

The Company's financial performance is affected by a number of factors, including the cyclical nature and varying conditions of the markets it serves. Demand in these markets fluctuates in response to overall economic conditions and is particularly sensitive to the amount of public sector spending on infrastructure development, privately funded infrastructure development, changes in the price of crude oil, which affects the cost of fuel and liquid asphalt, and changes in the price of steel.

The Company believes that federal highway funding influences the purchasing decisions of the Company's customers, who are typically more comfortable making capital equipment purchases with long-term federal legislation in place. Federal funding provides for approximately 25% of all highway, street, roadway and parking construction in the United States.

In July 2012, the "Moving Ahead for Progress in the 21st Century Act" ("Map-21") was approved by the U.S. federal government, which authorized \$105 billion of federal spending on highway and public transportation programs through fiscal year 2014. In August 2014, the U.S. government approved short-term funding of \$10.8 billion through May 2015. Federal transportation funding operated on short-term appropriations until December 4, 2015 when the Fixing America's Surface Transportation Act ("FAST Act") was signed into law. The \$305 billion FAST Act approved funding for highways of approximately \$205 billion and transit projects of approximately \$48 billion for the five-year period ending September 30, 2020.

The Company believes a multi-year highway program (such as the FAST Act) will have the greatest positive impact on the road construction industry and allow its customers to plan and execute longer-term projects, but given the inherent uncertainty in the political process, the level of governmental funding for federal highway projects will similarly continue to be uncertain. In late 2016, the newly-elected administration stated one of its priorities would be a new infrastructure bill including increased funding for roads, bridges, tunnels, airports, railroads, ports and waterways, pipelines, clean water infrastructure, energy infrastructure and telecommunication needs. The funding for the bill as proposed would rely in part on direct federal spending as well as increased private sector funding in exchange for federal tax credits. Governmental funding that is committed or earmarked for federal highway projects is always subject to repeal or reduction. Although continued funding under the FAST Act or funding of a bill passed by the new administration is expected, it may be at lower levels than originally approved or anticipated. In addition, Congress could pass legislation in future sessions that would allow for the diversion of previously appropriated highway funds for other purposes, or it could restrict funding of infrastructure projects unless states comply with certain federal policies. The level of future federal highway construction is uncertain and any future funding may be at levels lower than those currently approved or that have been approved in the past.

The public sector spending described above is needed to fund road, bridge and mass transit improvements. The Company believes that increased funding is unquestionably needed to restore the nation's highways to a quality level required for safety, fuel efficiency and mitigation of congestion. In the Company's opinion, amounts needed for such improvements are significantly greater than amounts approved to date, and funding mechanisms such as the federal usage fee per gallon of gasoline, which is still at the 1993 level of 18.4 cents per gallon, would likely need to be increased along with other measures to generate the funds needed.

In addition to public sector funding, the economies in the markets the Company serves, the price of oil and its impact on customers' purchasing decisions and the price of steel may each affect the Company's financial performance. Economic downturns generally result in decreased purchasing by the Company's customers, which, in turn, causes reductions in sales and increased pricing pressure on the Company's products. Rising interest rates also typically negatively impact customers' attitudes toward purchasing equipment. The Federal Reserve has maintained historically low interest rates in response to the economic downturn which began in 2009; however, the Federal Reserve raised the Federal Funds Rate in 2016 and again in March and June 2017, and may implement additional increases in the future.

Significant portions of the Company's revenues from the Infrastructure Group relate to the sale of equipment involved in the production, handling, recycling or installation of asphalt mix. Liquid asphalt is a by-product of oil production. An increase or decrease in the price of oil impacts the cost of asphalt, which is likely to alter demand for asphalt and therefore affect demand for certain Company products. While increasing oil prices may have a negative financial impact on many of the Company's customers, the Company's equipment can use a significant amount of recycled asphalt pavement, thereby partially mitigating the effect of increased oil prices on the final cost of asphalt for the customer. The Company continues to develop products and initiatives to reduce the amount of oil and related products required to produce asphalt mix. Oil price volatility makes it difficult to predict the costs of oil-based products used in road construction such as liquid asphalt and gasoline. Oil prices rose during much of 2016 but have declined somewhat during the first half of 2017. Minor fluctuations in oil prices should not have a significant impact on customers' buying decisions. Other factors such as political uncertainty in oil producing countries, interruptions in oil production due to disasters, whether natural or man-made, or other economic factors could significantly impact oil

prices, which could negatively impact demand for the Company's products. However, the Company believes the continued funding of the FAST Act federal highway bill passed in December 2015 has greater potential to impact the buying decisions of the Company's customers than does the fluctuation of oil prices in 2017.

Contrary to the impact of oil prices on many of the Company's Infrastructure Group products as discussed above, the products manufactured by the Energy Group, which are used in drilling for oil and natural gas, in heaters for refineries and oil sands, and in double fluid pump trailers for fracking and oil and gas extraction, would benefit from higher oil and natural gas prices, to the extent that such higher prices lead to increased development in the oil and natural gas production industries. The Company believes further development of domestic oil and natural gas production capabilities is needed and would positively impact the domestic economy and the Company's business.

Steel is a major component in the Company's equipment. Steel prices increased during the first half of 2017, and the Company expects moderate increases during the second half of 2017. The Company continues to utilize forward-looking contracts (with no minimum or specified quantity guarantees) coupled with advanced steel purchases to minimize the impact of any price increases. The Company will review the trends in steel prices during the third and fourth quarters of 2017 and establish future contract pricing accordingly.

In addition to the factors stated above, many of the Company's markets are highly competitive, and its products compete worldwide with a number of other manufacturers and dealers that produce and sell similar products. From 2010 through mid-2012, a weak U.S. dollar, combined with improving economic conditions in certain foreign economies, had a positive impact on the Company's international sales. From mid-2012 through June 30, 2017, the strong U.S. dollar has negatively impacted pricing in certain foreign markets the Company serves. The Company expects the U.S. dollar to remain strong in the near term relative to most foreign currencies. Increasing domestic interest rates or weakening economic conditions abroad could cause the U.S. dollar to continue to strengthen, which could negatively impact the Company's international sales.

In the United States and internationally, the Company's equipment is marketed directly to customers as well as through dealers. During 2016, approximately 75% to 80% of equipment sold by the Company was sold directly to the end user. The Company expects this ratio to remain relatively consistent through the end of 2017.

The Company is operated on a decentralized basis with a complete management team for each operating subsidiary. Finance, insurance, legal, shareholder relations, corporate accounting and other corporate matters are primarily handled at the corporate level (i.e., Astec Industries, Inc., the parent company). The engineering, design, sales, manufacturing and basic accounting functions are handled at each individual subsidiary. Standard accounting procedures are prescribed and followed in all reporting.

During 2016, the Company implemented revised profit sharing plans whereby corporate officers, subsidiary presidents and other employees at each subsidiary have the opportunity to earn profit sharing incentives based upon the Company's and/or the individual groups or subsidiaries' return on capital employed, EBITDA margin and safety. Corporate officers' and subsidiary presidents' awards when calculated at targeted performance are between 35% and 100% of their base salary, depending upon their responsibilities, and the plans allow for awards of up to 200% of the target. Each subsidiary has the opportunity to earn up to 10% of its after-tax profit as a profit sharing incentive award to be paid to its employees.

The Company also implemented revised long-term incentive plans during 2016 whereby corporate officers, subsidiary presidents and other corporate or subsidiary management employees will be awarded Restricted Stock Units ("RSUs") if certain goals are met based upon the Company's Total Shareholder's Return ("TSR") as compared to a peer group and the Company's pretax profit margin. The grant date value of corporate officers' and subsidiary presidents' awards when calculated at targeted performance are between 20% and 100% of their base salary, depending upon their responsibilities, and the plans allow for awards of up to 200% of the target. Additional RSUs may be granted to other key subsidiary management employees based upon individual subsidiary pretax profit margins and Company TSR as compared to a peer group.

# **Results of Operations**

#### Net Sales

Net sales for the second quarter of 2017 were \$301,909 compared to \$294,394 for the second quarter of 2016, an increase of \$7,515 or 2.6%. Sales are generated primarily from new equipment and parts sales to domestic and international customers. Sales increased in the Aggregate and Mining Group and the Energy Group but decreased in the Infrastructure Group. Domestic sales and backlogs continue to be positively impacted by effects of the long-term federal highway bill enacted in December 2015 and other state and local funding mechanisms. International sales are showing improvement due to increased order activity resulting from pent up demand and improved global market conditions, the stabilization of the U.S. dollar in certain foreign markets and a slight recovery in the mining and oil and gas sectors. Sales reported by the Company's foreign subsidiaries in U.S. dollars for the second quarter of 2017 would have been \$226 higher had 2017 foreign exchange rates been the same as second quarter 2016 rates.

Net sales for the six months ending June 30, 2017 were \$620,310 compared to \$573,116 for the same period in 2016, an increase of \$47,194 or 8.2%. Sales are generated primarily from new equipment and parts sales to domestic and international customers. Sales increased in all of the Company's operating segments. Domestic sales continue to be positively impacted by effects of the long-term federal highway bill enacted in December 2015 and other state and local funding mechanisms. International sales improved due to increased order activity resulting from pent up demand and improved global market conditions, the stabilization of the U.S. dollar in certain foreign markets and a slight recovery in the mining and oil and gas sectors. Sales reported by the Company's foreign subsidiaries in U.S. dollars for the six months ending June 30, 2017 would have been \$395 lower had 2017 foreign exchange rates been the same as rates for the six months ending June 30, 2016.

Domestic sales for the second quarter of 2017 were \$236,907 or 78.5% of consolidated net sales compared to \$242,211 or 82.3% of consolidated net sales for the second quarter of 2016, a decrease of \$5,304 or 2.2%. Domestic sales for the second quarter of 2017 as compared to the second quarter of 2016 decreased by \$21,631 in the Infrastructure Group but increased \$14,665 in the Energy Group (including sales of \$6,476 attributable to Power Flame, which was acquired in August 2016) and \$1,662 in the Aggregate and Mining Group.

Domestic sales for the six months ending June 30, 2017 were \$490,404 or 79.1% of consolidated net sales compared to \$476,459 or 83.1% of consolidated net sales for the same period in 2016, an increase of \$13,945 or 2.9%. Domestic sales for the first six months of 2017 as compared to the same period in 2016 increased \$26,805 in the Energy Group (including sales of \$12,458 attributable to Power Flame, which was acquired in August 2016) and \$5,980 in the Aggregate and Mining Group but decreased \$18,840 in the Infrastructure Group.

International sales for the second quarter of 2017 were \$65,002 or 21.5% of consolidated net sales compared to \$52,183 or 17.7% of consolidated net sales for the second quarter of 2016, an increase of \$12,819 or 24.6%. International sales for the second quarter of 2017 as compared to the second quarter of 2016 increased \$12,261 in the Infrastructure Group and \$6,371 in the Aggregate and Mining Group but decreased \$5,813 in the Energy Group. The increases in international sales occurred primarily in Russia, other Post-Soviet States, Europe, Canada, Brazil and the West Indies and were partially offset by decreases in sales in South America and Africa. The majority of the increase in sales was due to increased sales in the Company's asphalt plant related product lines. These increased sales were achieved in spite of the continuing strength of the U.S. dollar as compared to the currencies in many of the countries in which the Company operates, low oil and gas pricing and the continuing sluggishness in the mining sector. The increased sales volumes may indicate a softening of the impact of these issues on the Company's sales; however, the issues continue to be a significant headwind to our regaining historical levels of international sales.

International sales for the six months ending June 30, 2017 were \$129,906 or 20.9% of consolidated net sales compared to \$96,657 or 16.9% of consolidated net sales for the six months ending June 30, 2016, an increase of \$33,249 or 34.4%. International sales for the first six months of 2017 as compared to the same period in 2016 increased \$21,599 in the Infrastructure Group, \$10,178 in the Aggregate and Mining Group and \$1,472 in the Energy Group. The increases in international sales occurred primarily in Canada, Russia, Australia, Mexico, Europe, Brazil, Africa and the West Indies, offset by decreases in sales in South America and Japan/Korea. These increased sales were achieved in spite of the continuing strength of the U.S. dollar as compared to the currencies in many of the countries in which the Company operates, low oil and gas pricing and the continuing sluggishness in the mining sector. The increased sales volumes may indicate a softening of the impact of these issues on the Company's sales; however, the issues continue to be a significant headwind to our regaining historical levels of international sales.

Parts sales for the second quarter of 2017 were \$68,825 compared to \$63,839 for the second quarter of 2016, an increase of \$4,986 or 7.8%. Parts sales as a percentage of net sales increased 110 basis points from 21.7% for the second quarter of 2016 to 22.8% for the second quarter of 2017. Parts sales increased in all of the Company's segments.

Parts sales for the six months ending June 30, 2017 were \$149,784 compared to \$137,892 for the same period of 2016, an increase of \$11,892 or 8.6%. Parts sales as a percentage of net sales remained flat at 24.1%. Parts sales increased in all of the Company's segments.

#### **Gross Profit**

Consolidated gross profit decreased \$7,928 or 10.8% to \$65,524 for the second quarter of 2017 compared to \$73,452 for the second quarter of 2016. Gross profit as a percentage of sales decreased 330 basis points to 21.7% for the second quarter of 2017 compared to 25.0% for the second quarter of 2016 due to changes in product mix, increased costs associated with new products and pellet plant installation cost overruns.

Consolidated gross profit decreased \$4,112 or 2.8% to \$141,296 for the six months ending June 30, 2017 compared to \$145,408 for the six months ending June 30, 2016. Gross profit as a percentage of sales decreased 260 basis points to 22.8% for six months ended June 30, 2017 compared to 25.4% for the six months ended June 30, 2016 due to changes in product mix, increased costs associated with new products and pellet plant installation cost overruns.

### Selling, General, Administrative and Engineering Expenses

Selling, general, administrative and engineering expenses decreased \$741 to \$44,220 or 14.6% of net sales for the second quarter of 2017, compared to \$44,961 or 15.3% of net sales for the second quarter of 2016 due to decreases in general and administrative expenses of \$2,367, including decreases in SERP expenses of \$991, profit sharing expenses of \$336 and legal and professional fees of \$389. These decreases were partially offset by increases in selling expenses of \$1,032, including increased sales promotions of \$966, and engineering expenses of \$594, including an increase in research and development expenses of \$263.

Selling, general, administrative and engineering expenses increased \$8,576 to \$97,342 or 15.7% of net sales for the six months ending June 30, 2017, compared to \$88,766 or 15.5% of net sales for same period in 2016. The overall increase was due to increases in selling expenses of \$5,331, (including increased ConExpo exhibit costs of \$4,582 and increases in amortization of \$764), increases in general and administrative expenses of \$1,355 (including increased wages of \$1,140, profit sharing expenses of \$680 and RSU expenses of \$570, partially offset by a reduction in SERP expenses of \$1,537), and increases in engineering expenses of \$1,890 (including an increase in research and development expenses of \$854).

#### Interest Expense

Interest expense for the second quarter of 2017 decreased to \$185 from \$326 for the second quarter of 2016, primarily due to a reduction in bank debt at Astec Brazil.

Interest expense for the six months ended June 30, 2017 decreased to \$450 from \$793 for the first six months of 2016, due primarily to reduced interest on tax return audits and a reduction in bank debt at Astec Brazil. 25

#### Other Income, Net of Expenses

Other income, net of expenses was \$261 for the second quarter of 2017 compared to \$276 for the second quarter of 2016, a decrease of \$15.

Other income, net of expenses was \$773 for the six months ended June 30, 2017 compared to \$819 for the six months ended June 30, 2016, a decrease of \$46.

#### Income Tax Expense

The Company's combined effective income tax rate was 32.8% for the second quarter of 2017 compared to 36.2% for the second quarter of 2016. The tax rate decline between periods is due to favorable impacts of state tax apportionment legislation and increased federal domestic production activities deductions.

The Company's combined effective income tax rate was 33.5% for the six months ended June 30, 2017 compared to 36.8% six months ended June 30, 2016. The tax rate decline between periods is due to favorable impacts of state tax apportionment legislation and increased federal domestic production activities deductions.

#### Net Income

The Company had net income attributable to controlling interest of \$14,420 for the second quarter of 2017 compared to \$18,192 for the second quarter of 2016, a decrease of \$3,772 or 20.7%. Net income attributable to controlling interest per diluted share was \$0.62 for the second quarter of 2017 compared to \$0.79 for the second quarter of 2016, a decrease of \$0.17. Diluted shares outstanding for the quarters ended June 30, 2017 and 2016 were 23,183 and 23,135, respectively.

The Company had net income attributable to controlling interest of \$29,540 for the six months ending June 30, 2017 compared to \$35,935 for six months ending June 30, 2016, a decrease of \$6,395 or 17.8%. Net income attributable to controlling interest per diluted share was \$1.27 for the six months ending June 30, 2017 compared to \$1.55 for the same period in 2016, a decrease of \$0.28.

#### Dividends

In February 2013, the Company's Board of Directors approved a dividend policy pursuant to which the Company began paying a quarterly \$0.10 per share dividend on its common stock beginning in the second quarter of 2013. The actual amount of future quarterly dividends, if any, will be based upon the Company's financial position, results of operations, cash flows, capital requirements and restrictions under the Company's existing credit agreement, among other factors. The Board retained the power to modify, suspend or cancel the Company's dividend policy in any manner and at any time it deems necessary or appropriate in the future. The Company paid quarterly dividends of \$0.10 per common share to shareholders in each quarter of 2016 and the first two quarters of 2017.

# Backlog

The backlog of orders as of June 30, 2017 was \$352,355 compared to \$371,318 as of June 30, 2016, a decrease of \$18,963 or 5.1%. Domestic backlogs decreased \$40,218 or 12.7% while international backlogs increased \$21,255 or 38.7%. The June 30, 2017 backlog was comprised of 78.4% domestic orders and 21.6% international orders, as compared to 85.2% domestic orders and 14.8% international orders as of June 30, 2016. Included in the June 30, 2017 and 2016 backlogs is approximately \$60,000 for a three line pellet plant from one customer under a Company financed arrangement whereby the Company will record the related revenues when payment is received, which is expected in late 2018. A majority of the backlog at June 30, 2016 (\$84,140) pertaining to a pellet plant order from a second customer was fulfilled in the second half of 2016 and the first two quarters of 2017, resulting in a remaining backlog of \$4,825 related to this order at June 30, 2017. No additional pellet plant orders have been received. All June 30, 2016 backlog amounts have been recast to include the backlog of Power Flame Incorporated which was acquired on August 1, 2016. The Company is unable to determine whether the changes in backlogs were experienced by the industry as a whole; however, the Company believes the changes in backlogs reflect the current economic

conditions the industry is experiencing.

Segment Net Sales-Quarter:

June 30, \$ %
2017 2016 Change Change

	2017	2016	Change	Change	
Infrastructure Group	\$143,106	\$152,476	\$(9,370)	(6.1	)%
Aggregate and Mining Group	107,118	99,085	8,033	8.1	%
Energy Group	51,685	42,833	8,852	20.7	%

Three Months Ended

Infrastructure Group: Sales in this group were \$143,106 for the second quarter of 2017 compared to \$152,476 for the same period in 2016, a decrease of \$9,370 or 6.1%. Domestic sales for the Infrastructure Group decreased \$21,631 or 15.4% for the second quarter of 2017 compared to the same period in 2016 due primarily to a \$14,070 reduction in pellet plant sales and reduced domestic asphalt plant sales, as production capacity was utilized on international sales. These reductions were partially offset by growth in mobile asphalt equipment sales. Infrastructure Group domestic sales and backlogs continue to be favorably impacted by the increased federal funding under the FAST Act. International sales for the Infrastructure Group increased \$12,261 or 105.7% for the second quarter of 2017 compared to the same period in 2016 due primarily to an increase in asphalt plant sales coupled with increased mobile asphalt related sales resulting from improved highway building activities in certain foreign countries, the release of pent up demand and improved global market conditions. The increase in international sales was also impacted by the Company's decision to market its mobile equipment products through equipment dealers in select territories in which historical direct sales efforts yielded less than desired volumes. Sales increases in Russia, Canada, Europe and the West Indies were partially offset by decreases in sales in China and South America. Parts sales for the Infrastructure Group increased 7.2% for the second quarter of 2017 compared to the same period in 2016 due primarily to increased asphalt plant related sales.

Aggregate and Mining Group: Sales in this group were \$107,118 for the second quarter of 2017 compared to \$99,085 for the same period in 2016, an increase of \$8,033 or 8.1%. Domestic sales for the Aggregate and Mining Group increased by \$1,662 or 2.4% for the second quarter of 2017 compared to the same period in 2016 due primarily to increased sales to the Company's traditional rock quarry markets offset by reductions in sales to the domestic mining industry. International sales for the Aggregate and Mining Group increased \$6,371 or 22.1% in the second quarter of 2017 compared to the same period in 2016 due to an easing of pent up demand coupled with the Company's continued sales efforts in the international markets as well as a small improvement in sales in the mining industry compared to the historically low sales in 2016. International sales increases in Brazil, Europe and Post-Soviet States were partially offset by small decreases in sales into Africa and Canada. Parts sales for this group increased 5.0% for the second quarter of 2017 compared to the same period in 2016 due primarily to international sales by the Company's subsidiary in South Africa.

Energy Group: Sales in this group were \$51,685 for the second quarter of 2017 compared to \$42,833 for the same period in 2016, an increase of \$8,852 or 20.7%. Domestic sales for the Energy Group increased \$14,665 or 47.1% for the second quarter of 2017 compared to the same period in 2016 due primarily to \$6,476 of sales by Power Flame, which was acquired in August 2016, as well increased sales in most production lines, including industrial boilers, wood chipping and grinding equipment, water well drilling rigs and oil and gas industry products. International sales for the Energy Group decreased \$5,813 or 49.6% due primarily to reduced sales of industrial boilers and wood chipping and grinding equipment. Sales decreases occurred in South America and Canada. Parts sales for this group increased 16.8% for the second quarter of 2017 compared to the same period in 2016 due primarily to the acquisition of Power Flame and growth in parts sales for industrial boiler and heater products as well as wood chipper and grinders.

Segment Net Sales-Six Months:

June 30, \$ % 2017 2016 Change Change \$308,349 \$305,590 \$2,759 0.9 Infrastructure Group % Aggregate and Mining Group 207,731 191,573 16,158 8.4 % **Energy Group** 104,230 75,953 28,277 37.2 %

Six Months Ended

Infrastructure Group: Sales in this group were \$308,349 for the six months ending June 30, 2017 compared to \$305,590 for the same period in 2016, an increase of \$2,759 or 0.9%. Domestic sales for the Infrastructure Group decreased \$18,840 or 6.8% for the first six months of 2017 compared to the same period in 2016 due to a \$29,754 decline in pellet plant sales offset by growth in sales for mobile asphalt equipment. International sales for the Infrastructure Group increased \$21,599 or 76.6% for the first six months of 2017 compared to the same period in 2016 due to growth in sales of both asphalt plants and mobile asphalt equipment. The increased international sales occurred in Canada, Russia, and Australia and were partially offset by decreases in sales in South America and China. Parts sales for the Infrastructure Group increased 6.9% for the six months ending June 30, 2017 compared to the same period in 2016 due primarily to improved sales of parts for asphalt plants and mobile asphalt equipment.

Aggregate and Mining Group: Sales in this group were \$207,731 for the six months ending June 30, 2017 compared to \$191,573 for the same period in 2016, an increase of \$16,158 or 8.4%. Domestic sales for the Aggregate and Mining Group increased by \$5,980 or 4.3% for the six months ending June 30, 2017 compared to the same period in 2016 due primarily to improved sales to the Company's traditional rock quarry markets and increased sales by the Company's Northern Ireland based subsidiary into the U.S. domestic market. International sales for the Aggregate and Mining Group increased \$10,178 or 19.0% for the six months ending June 30, 2017 compared to the same period in 2016 due to an easing of pent up demand coupled with the Company's continued sales efforts in the international markets as well as a small improvement in sales in the mining industry, including at the Company's Brazilian subsidiary, compared to the historically low sales in 2016. International sales increases in Europe, Canada, Brazil, Australia, Russia and China were partially offset by decreased sales in Japan/Korea and the Middle East. Parts sales for this group increased 7.0% for the six months ending June 30, 2017 compared to the same period in 2016.

Energy Group: Sales in this group were \$104,230 for the six months ending June 30, 2017 compared to \$75,953 for the same period in 2016, an increase of \$28,277 or 37.2%. Domestic sales for the Energy Group increased \$26,806 or 43.8% for the six months ending June 30, 2017 compared to the same period in 2016 due primarily to \$12,458 of sales by Power Flame, which was acquired in August 2016, as well as increases in industrial heaters and boilers, water well drilling rigs, oil and gas equipment and wood chipping and grinding equipment. International sales for the Energy Group increased \$1,472 or 10.0%. International sales increases occurred in Australia and Africa and were partially offset by decreases in South American and Japan/Korea. Parts sales for this group increased 18.7% for the six months ending June 2017 compared to the same period in 2016 due to the acquisition of Power Flame and increased parts sales at each subsidiary in this group.

Segment Profit (Loss)-Quarter:

Corporate

Three Months Ended June 30, % Change Change 2017 2016 Infrastructure Group \$9,893 \$19,673 \$(9,780) (49.7 )% Aggregate and Mining Group 10,947 420 % 11,367 3.8 **Energy Group** 3,165 539 20.5 % 2,626

(10,260)

Infrastructure Group: Segment profit for this group was \$9,893 for the second quarter of 2017 compared to \$19,673 for the same period in 2016, a decrease of \$9,780 or 49.7%. Segment profits for the Infrastructure Group were negatively impacted by a \$9,763 decline in gross profits between periods resulting from a \$9,370 decline in sales between periods and a 530 basis point decrease in gross margins. The decline in gross margins was primarily due to unexpected cost overruns associated with pellet plant site preparation and installation costs and increased production costs related to new products sold.

(14,912) 4,652

31.2

%

Aggregate and Mining Group: Segment profit for the Aggregate and Mining group was \$11,367 for the second quarter of 2017 compared to \$10,947 for the same period in 2016, an increase of \$420 or 3.8%. The increase in profits between periods is due to a reduction in selling expenses of \$532 (primarily exhibit costs) and \$327 in general and administrative costs (primarily amortization, bad debt expense and legal and professional fees), which were partially offset by a reduction of \$350 resulting from a 230 basis point decrease in gross margins on an \$8,033 increase in sales between periods.

Energy Group: The Energy group had a profit of \$3,165 for the second quarter of 2017 compared to \$2,626 for the second quarter of 2016 an increase of \$539 or 20.5%. Profits for the segment were positively impacted by a \$8,852 increase in sales between periods while gross margins remained relatively constant (40 basis point increase) resulting in a \$2,350 increase in gross profits between periods. The favorable increase in gross profits was partially offset by increased selling, general and administrative and engineering expenses of \$1,843 due primarily to costs incurred by Power Flame, which was acquired in August 2016.

Corporate: The Corporate Group had a loss of \$10,260 for the second quarter of 2017 compared to a loss of \$14,912 for the second quarter of 2016, a favorable increase of \$4,652 or 31.2%, due primarily to reductions in U.S. federal income taxes of \$2,507, SERP expenses of \$991 and profit sharing expenses of \$381.

Segment Profit (Loss)-Six Months:

Six Month	s Ended			
June 30,				
		\$	%	
2017	2016	Change	Change	
\$28,073	\$41,536	\$(13,463)	(32.4	)%
19,795	20,485	(690)	(3.4	)%
5,894	2,433	3,461	142.3	%
(24,689)	(29,137)	4,448	15.3	%
	June 30, 2017 \$28,073 19,795 5,894	2017 2016 \$28,073 \$41,536 19,795 20,485 5,894 2,433	June 30, \$ 2017 2016 Change \$28,073 \$41,536 \$(13,463) 19,795 20,485 (690 ) 5,894 2,433 3,461	June 30,  2017 2016 Change Change \$28,073 \$41,536 \$(13,463) (32.4 19,795 20,485 (690 ) (3.4 5,894 2,433 3,461 142.3

Infrastructure Group: Segment profit for this group was \$28,073 for the six months ending June 30, 2017 compared to \$41,536 for the same period in 2016, a decrease of \$13,463 or 32.4%. Segment profits for the Infrastructure Group were negatively impacted by a decrease in gross profit of \$11,799 resulting from a 400 basis point decrease in gross margins. The decline in gross margins was primarily due to unexpected cost overruns associated with pellet plant site preparation and installation costs and increased production costs related to new products sold. Segment profits were also negatively impacted by a \$2,165 increase in selling expenses between periods (\$2,089 of which related to ConExpo) and an increase in engineering expenses of \$745.

Aggregate and Mining Group: Segment profit for this group was \$19,795 for the six months ending June 30, 2017 compared to \$20,485 for the same period in 2016, a decrease of \$690 or 3.4%. \$475 of the reduction resulted from a 230 basis point decrease in gross margins (due primarily to costs associated with new products) on a \$16,158 increase in sales between periods.

Energy Group: The Energy group had a profit of \$5,894 for the six months ending June 30, 2017 compared to \$2,433 for the same period in 2016 an increase of \$3,461 or 142.3%. Profit for the segment was positively impacted by gross profits on a \$28,277 increase in sales and a 150 basis point increase in gross margins between periods resulting in increased gross profits of \$8,155. The improved gross profits were partially offset by a \$4,671 increase in selling, general and administrative and engineering expenses between periods, primarily due to costs incurred by Power Flame, which was acquired in August 2016, and costs of \$509 related to ConExpo.

Corporate: The Corporate Group had a loss of \$24,689 for the six months ending 2017 compared to a loss of \$29,137 for the same period in 2016, a favorable increase of \$4,448 or 15.3% due primarily to reductions in U.S. federal income taxes of \$5,034 and SERP expenses of \$1,537, partially offset by increased profit sharing expenses of \$653 and restricted stock unit expenses of \$570.

#### Liquidity and Capital Resources

The Company's primary sources of liquidity and capital resources are its cash on hand, borrowing capacity under a \$100,000 revolving credit facility and cash flows from operations. The Company had \$52,107 of cash available for operating purposes as of June 30, 2017, of which \$16,498 was held by the Company's foreign subsidiaries. While the Company has no plans to transfer the cash held by its foreign subsidiaries to the U.S. in the foreseeable future, to the extent foreign earnings are eventually repatriated, such amounts may be subject to income tax liabilities, both in the U.S. and in various applicable foreign jurisdictions. At June 30, 2017 and at all times during the first six months of 2017, the Company had no borrowings outstanding under its credit facilities with Wells Fargo Bank, N.A. Net of letters of credit totaling \$8,446, the Company had borrowing availability of \$91,554 under the credit facility as of June 30, 2017. The amended and restated credit agreement contains certain financial covenants, including provisions concerning required levels of annual net income and minimum tangible net worth. The Company was in compliance with the financial covenants of the Wells Fargo agreement at June 30, 2017.

The Company's South African subsidiary, Osborn Engineered Products SA (Pty) Ltd ("Osborn"), has a credit facility of \$7,266 with a South African bank to finance short-term working capital needs, as well as to cover performance letters of credit, advance payment and retention guarantees. As of June 30, 2017, Osborn had no outstanding borrowings but had \$418 in performance, advance payment and retention guarantees outstanding under the facility. The facility has been guaranteed by Astec Industries, Inc., but is otherwise unsecured. A 0.75% unused facility fee is charged if less than 50% of the facility is utilized. As of June 30, 2017, Osborn had available credit under the facility of \$6,848. The interest rate is 0.25% less than the South Africa prime rate, resulting in a rate of 10.25% as of June 30, 2017.

The Company's Brazilian subsidiary, Astec Brazil, has outstanding working capital loans totaling \$4,439 as of June 30, 2017 from three Brazilian banks with interest rates ranging from 10.4% to 11.0%. The loans' maturity dates range from November 2018 to April 2024 and the debts are secured by Astec Brazil's manufacturing facility and also by letters of credit totaling \$6,200 issued by Astec Industries, Inc. Additionally, Astec Brazil has various 5-year equipment financing loans outstanding with two Brazilian banks in the aggregate of \$896 as of June 30, 2017 that have interest rates ranging from 3.5% to 16.3%. These equipment loans have maturity dates ranging from September 2018 to April 2020. Astec Brazil's loans are included in the accompanying condensed consolidated balance sheets as current maturities of long-term debt (\$2,572) and long-term debt (\$2,763) as of June 30, 2017.

### Cash Flows from Operating Activities:

	Six Month	s Ended	
	June 30,		Increase
	2017	2016	(Decrease)
Net income	\$29,439	\$35,819	\$ (6,380 )
Depreciation and amortization	12,777	11,787	990
Provision for warranties	8,248	8,300	(52)
Changes in working capital:			
Increase in trade and other receivables	(38,551)	(25,782)	(12,769)
(Increase) decrease in inventories	(20,919)	5,299	(26,218)
(Increase) decrease in prepaid expenses	3,502	(6,116)	9,618
Increase in accounts payable	7,662	6,497	1,165
Increase in customer deposits	6,813	22,357	(15,544)
Decrease in product warranty accruals	(7,184)	(5,569)	(1,615 )
Change in prepaid and income taxes payable, net	(7,847)	4,704	(12,551)
Other, net	(2,992)	6,757	(9,749 )
Net cash provided (used) by operating activities	\$(9,052)	\$64,053	\$ (73,105)

Net cash from operating activities decreased by \$73,105 for the first six months of 2017 as compared to the first six months of 2016 due primarily to a \$12,769 increase in the growth of accounts receivables (due to an increase in days outstanding from 38.9 to 43.7 between periods), an increase in the growth of inventories of \$26,218 related to increased sales volumes, a reduction in the growth of customer deposits of \$15,544 (due primarily to a large pellet plant related deposit received in the first quarter of 2016) and a \$12,551 increase in cash used for income tax payments verses when the taxes were expensed.

#### Cash Flows Used by Investing Activities:

	Six Month	s Ended	
	June 30,		Increase
	2017	2016	(Decrease)
Expenditures for property and equipment	\$(10,846)	\$(13,265)	\$ 2,419
Other	(350)	23	(373)
Net cash used by investing activities	\$(11,196)	\$(13,242)	\$ 2,046

Net cash used by investing activities decreased by \$2,046 for the first six months of 2017 as compared to the same period in 2016 due primarily to decreased spending on capital expenditures in the first six months of 2017 as compared to the first six months of 2016.

Total capital expenditures for 2017 are forecasted to be approximately \$25,000. The Company expects to finance these expenditures using currently available cash balances, internally generated funds and available credit under the

Company's credit facilities. Capital expenditures are generally for machinery, equipment and facilities used by the Company in the production of its various products. The Company believes that its current working capital, cash flows generated from future operations and available capacity under its credit facility will be sufficient to meet the Company's working capital and capital expenditure requirements through June 30, 2018.

#### Cash Flows from Financing Activities:

	Six Months Ended			
	June 30,		Increase	
	2017	2016	(Decrease	(:)
Payment of dividends	\$(4,613)	\$(4,608)	\$ (5	)
Net change in borrowings from banks	(5,929)	(998)	(4,931	)
Other, net	(373)	(1,843)	1,470	
Net cash used by financing activities	\$(10,915)	\$(7,449)	\$ (3,466	)

Cash used by financing activities increased by \$3,466 for the first six months of 2017 compared to the same period in 2016 due primarily to changes in the amount of bank debt outstanding at the Company's foreign subsidiaries.

#### Financial Condition

The Company's current assets increased to \$611,087 as of June 30, 2017 from \$576,833 as of December 31, 2016, an increase of \$34,254 or 5.9% due primarily to an increases in trade receivables of \$36,820 and inventories of \$20,919, offset by a decline in cash of \$30,264 during the first six months of 2017.

The Company's current liabilities increased to \$175,858 as of June 30, 2017 from \$168,861 as of December 31, 2016, an increase of \$6,997 or 4.1% due primarily to an increase in accounts payable of \$7,891 and customer deposits of \$6,814 offset by a reduction in short-term bank debt at one of the Company's foreign subsidiaries of \$4,632.

#### Market Risk and Risk Management Policies

We have no material changes to the disclosure on this matter made in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

#### Off-balance Sheet Arrangements

As of June 30, 2017, the Company does not have any off-balance sheet arrangements as defined by Item 303(a)(4) of Regulation S-K.

#### **Contractual Obligations**

During the six months ended June 30, 2017, there were no substantial changes in the Company's commitments or contractual liabilities.

#### Item 3. Quantitative and Qualitative Disclosures about Market Risk

The Company has no material changes to the disclosure on this matter made in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

### Item 4. Controls and Procedures

# **Disclosure Controls and Procedures**

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

The Company's management, under the supervision and with the participation of the Company's principal executive officer and principal financial officer, has evaluated the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based upon that evaluation, the Company's principal executive officer and principal financial officer concluded that, as of the end of the period covered by this report, the

Company's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) were effective. 32

# Internal Control over Financial Reporting

There have been no changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the quarter ended June 30, 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

The Company is involved from time to time in legal actions arising in the ordinary course of its business. Other than as set forth in Part I, "Item 3. Legal Proceedings" in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, the Company currently has no pending or threatened litigation that the Company believes will result in an outcome that would materially affect the Company's business, financial position, cash flows or results of operations. Nevertheless, there can be no assurance that future litigation to which the Company becomes a party will not have a material adverse effect on its business, financial position, cash flows or results of operations.

#### Item 1A. Risk Factors

In addition to the other information set forth in this Report, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, which could materially affect the Company's business, financial condition or future results. There have been no material changes in the Company's risk factors from those disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2016. The risks described in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 and in this Quarterly Report on Form 10-Q are not the only risks facing our Company. Additional risks and uncertainties not currently known to management or that management currently deems to be immaterial also may materially adversely affect the Company's business, financial condition or operating results.

#### Item 6. Exhibits

Exhibit No.	Description
10.1	Amendment to "Appendix A" of the Astec Industries, Inc. Supplemental Executive Retirement Plan, effective July 27, 2017.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

The exhibits are numbered in accordance with Item 601 of Regulation S-K. Inapplicable exhibits are not included in the list.

<sup>\*</sup> In accordance with Release No. 34-47551, this exhibit is hereby furnished to the SEC as an accompanying document and is not to be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as

amended, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended.

Items 2, 3, 4 and 5 are not applicable and have been omitted.

### **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.

ASTEC INDUSTRIES, INC. (Registrant)

Date: August 7, 2017 /s/ Benjamin G. Brock

Benjamin G. Brock Chief Executive Officer (Principal Executive Officer)

Date: August 7, 2017 /s/ David C. Silvious

David C. Silvious

Chief Financial Officer, Vice President, and Treasurer

(Principal Financial and Accounting Officer)

### Exhibit Index

Exhibit No.	Description
10.1	Amendment to "Appendix A" of the Astec Industries, Inc. Supplemental Executive Retirement Plan, effective July 27, 2017.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase