

# Innovation Driving Growth



Citi 2019 Global  
Technology  
Conference

# Safe Harbor

The company's guidance with respect to anticipated financial results for the second quarter ending June 30, 2019, potential future growth and profitability, our future business mix, expectations regarding future market trends and the company's future performance within specific markets (e.g., statements regarding anticipated semiconductor and industrial market growth) and other statements herein or made on the above-announced conference call that are not historical information are 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. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties include, but are not limited to: (a) the effects of global macroeconomic conditions upon demand for our products and services; (b) the volatility and cyclical nature of the industries the company serves, particularly the semiconductor industry; (c) delays in capital spending by end-users in our served markets; (d) the accuracy of the company's estimates related to fulfilling solar inverter product warranty and post-warranty obligations; (e) the company's ability to realize its plan to avoid additional costs after the solar inverter wind-down; (f) the accuracy of the company's assumptions on which its financial statement projections are based; (g) the impact of product price changes, which may result from a variety of factors; (h) the timing of orders received from customers; (i) the company's ability to realize benefits from cost improvement efforts including avoided costs, restructuring plans and inorganic growth; (j) the company's ability to obtain in a timely manner the materials necessary to manufacture its products; (k) unanticipated changes to management's estimates, reserves or allowances; and (l) changes and adjustments to the tax expense and benefits related to the recently enacted U.S. tax reform. These and other risks are described in Advanced Energy's Form 10-K, Forms 10-Q and other reports and statements filed with the Securities and Exchange Commission (the "SEC"). These reports and statements are available on the SEC's website at [www.sec.gov](http://www.sec.gov). Copies may also be obtained from Advanced Energy's investor relations page at <http://ir.advanced-energy.com> or by contacting Advanced Energy's investor relations at 970-407-6555. Forward-looking statements are made and based on information available to the company on the date of this presentation. Aspirational goals and targets discussed in the presentation materials should not be interpreted in any respect as guidance. The company assumes no obligation to update the information in this press release.

# Precision Power Technology Leader

**MARKET LEADER** in precision power generation, conversion, measurement, and control

**ENABLING CRITICAL APPLICATIONS** in high growth markets driven by the new data economy and precise power control

**ARTESYN EP ACQUISITION** expands presence in industrial technology markets and creates platform for higher earnings growth

**STRONG FINANCIAL MODEL** enables foundation for profitable growth and shareholder return

*Enabling the Future*



SMARTPHONES



CONSUMER ELECTRONICS



AUTOMOBILE



DISPLAY

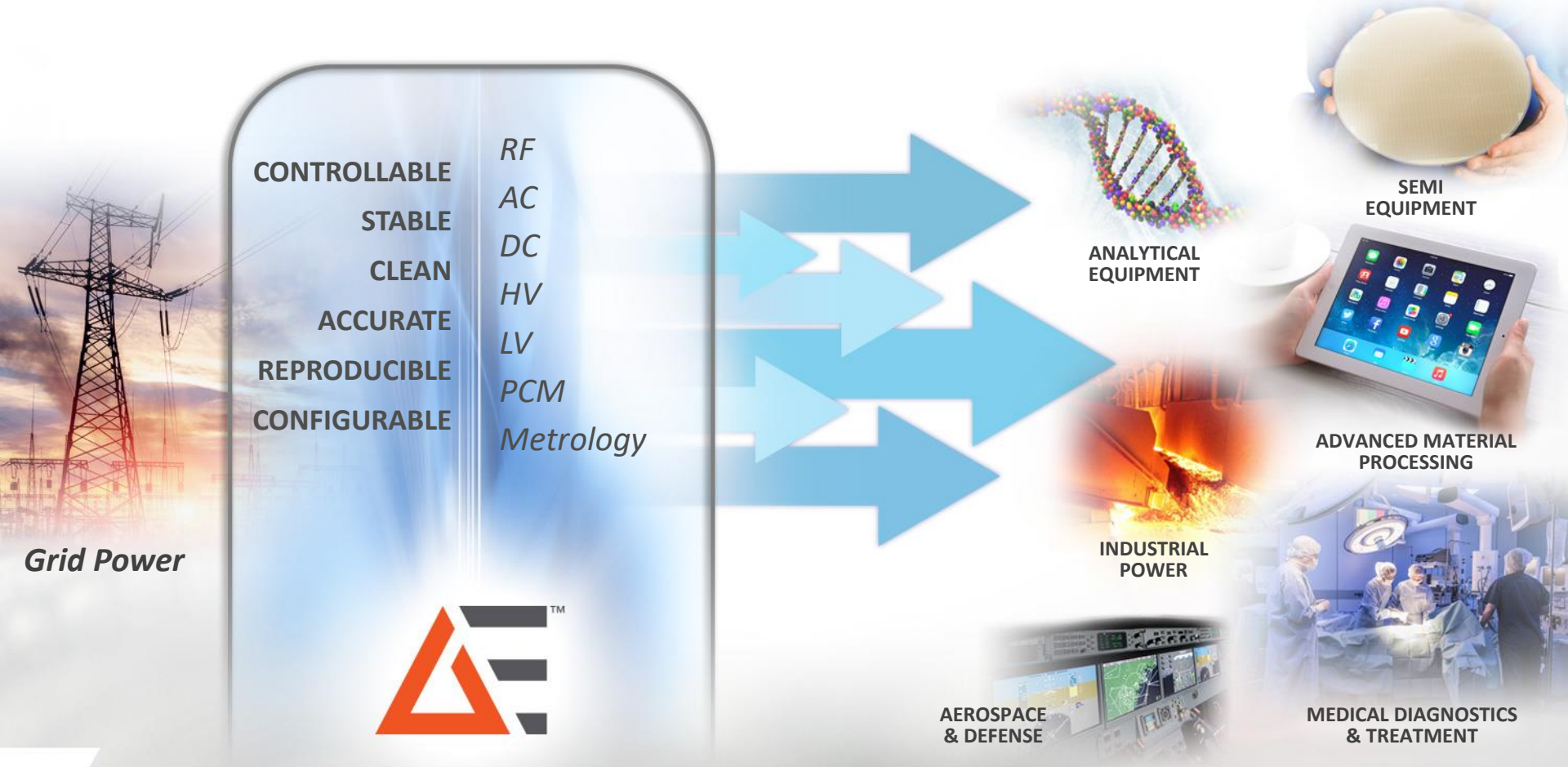


MEDICAL DEVICES  
& TECHNOLOGY



*AE's Critical Power Technology  
Enabling Everyday Products*

# Delivering Precision Power for Critical Applications





# Markets and Applications



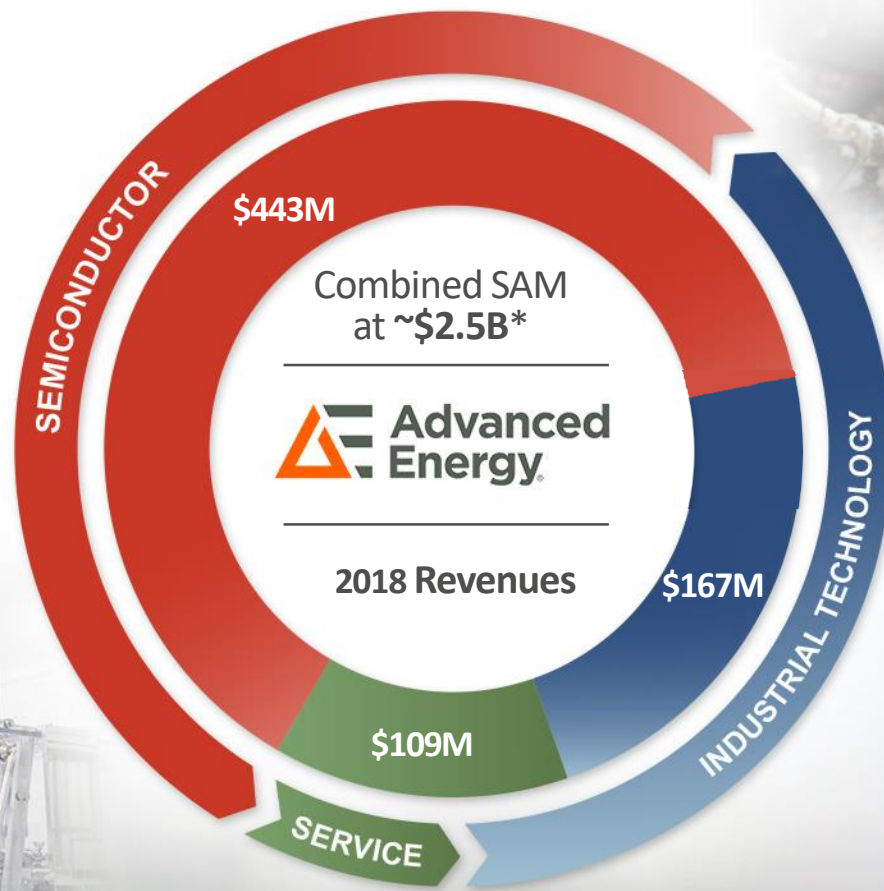
## Semiconductor

Etch, Deposition, Thermal, Epi,  
Implant, ECD, Inspection and  
Metrology



## Service

Contracts, on-demand, retrofits,  
upgrades, refurbishments



## Advanced Materials

Display, Glass, Consumer Electronics,  
Optical, PV Solar, Automotive,  
Industrial/Hard Coating

## Applied Power

Medical, Life Sciences, Analytical  
Instrumentation, Environmental,  
Custom Power, Aerospace, Defense



# Acquisition of Artesyn Embedded Power



# AE to Acquire Artesyn Embedded Power

## *A Highly Strategic and Transformative Acquisition*

<b>TRANSFORM &amp; EXPAND</b>	<ul style="list-style-type: none"><li>▪ <b>GLOBAL PLATFORM</b> with \$1.3 billion<sup>(1)</sup> of revenue and a global presence across critical technologies and markets</li><li>▪ <b>EXPANDS SAM BY 3X</b> to \$7.5 billion<sup>(2)</sup> by adding new attractive growth verticals in Datacenter, 5G infrastructure, Industrial and Medical</li></ul>
<b>STRATEGIC FIT</b>	<ul style="list-style-type: none"><li>▪ <b>HIGHLY COMPLEMENTARY</b> technologies, product portfolios and shared core competencies</li><li>▪ <b>BROADENS AND DIVERSIFIES</b> Advanced Energy into multiple, stable growth verticals and customers</li></ul>
<b>VALUE CREATION</b>	<ul style="list-style-type: none"><li>▪ <b>ACCELERATED EARNINGS GROWTH</b> with expected near-term synergies of &gt;\$20 million, driving projected annual accretion of &gt;\$0.80/share in 18-24 months and &gt;\$1.50/share long-term<sup>(3)</sup></li><li>▪ <b>ATTRACTIVE DEAL ECONOMICS</b> with a purchase price \$400 million at ~5x synergy-adjusted EBITDA<sup>(4)</sup> and meaningful opportunity for margin expansion</li></ul>

***Creates a Pure-Play Power House with Global Platform for Accelerated EPS Growth***



(1) Pro forma combined revenue in 2018

(2) Source: Micro-Tech Consultants Global Switching Power Supply Industry Report, VLSI Research reports and management estimates

(3) All synergies and accretions are on non-GAAP basis; please see our non-GAAP and Adjusted Financial Measure statement for more details

(4) Transaction value divided by 2018 EBITDA plus pre-tax synergies of \$20 million

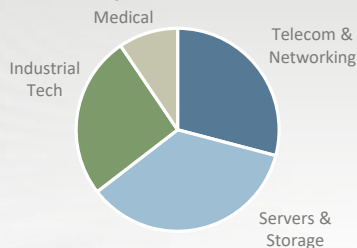
# At a Glance: Artesyn Embedded Power

## WHO IS ARTESYN EMBEDDED POWER

- One of the World's largest suppliers of power conversion technologies and products
- Market leader of highly-engineered, application-specific power supplies in demanding equipment applications
- Highly valued as a trusted technology partner to key OEM customers
- Solid macro drivers supporting growth in 2019 and beyond

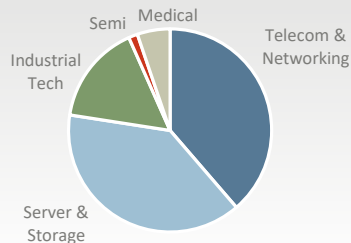
### LARGE MARKET OPPORTUNITIES

Artesyn EP SAM<sup>(1)</sup> = \$5.2B



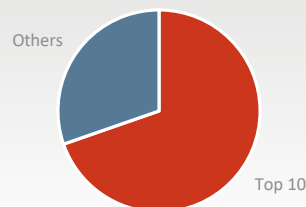
### BALANCED MARKET EXPOSURE

2018 Revenues by Markets



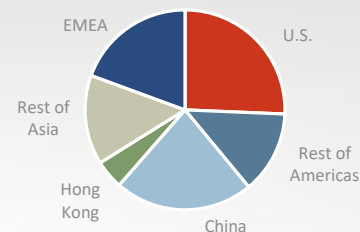
### DIVERSE CUSTOMER MIX

Customer Mix



### GLOBAL REACH

Regional Mix



## KEY HIGHLIGHTS

2018 Sales:  
**\$593 Million**

2018 Adj. EBITDA:  
**\$55 Million**

Fortune 500 Customers:  
**20**

Direct Customers:  
**~200**

Employees:  
**~9,500**

Technical Team:  
**>700**



(1) Source: Micro-Tech Consultants Global Switching Power Supply Industry Report and management estimates



# Strong Macro Growth Drivers Across All Verticals

## Data Economy

### DATACENTER HYPERSCALE

- Growing cloud adoption across enterprise IT
- Increased workload driven by AI & ML
- Power cost and efficiency increasingly important



### 5G WIRELESS INFRASTRUCTURE

- Delivering up to 100X faster speed than 4G/LTE
- A key enabler for IoT communication
- Increased complexity and power density



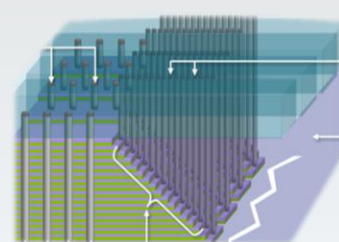
### INDUSTRIAL AND MEDICAL

- Intelligent power and connectivity in industrial
- Demand for zero failure in medical
- Increased precision and power controls



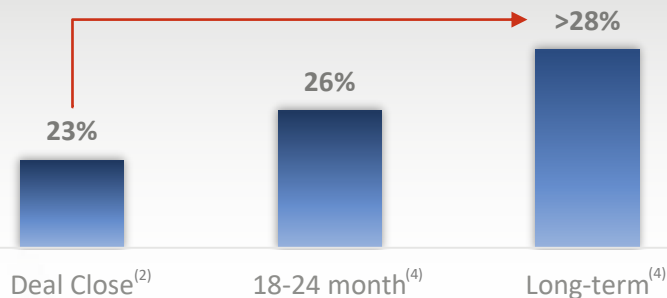
### SEMICONDUCTOR EQUIPMENT

- Increased device complexity
- New materials and processes enable scaling
- Higher power & more complex power topology

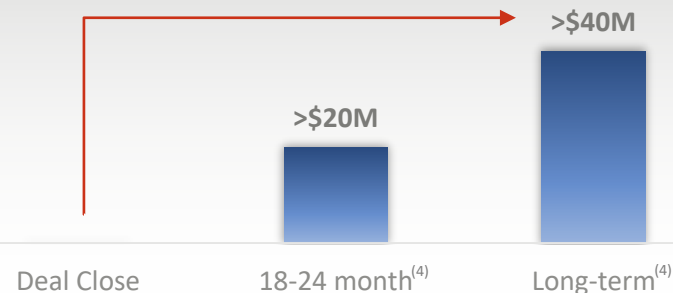


# Path for Accelerating EPS Growth

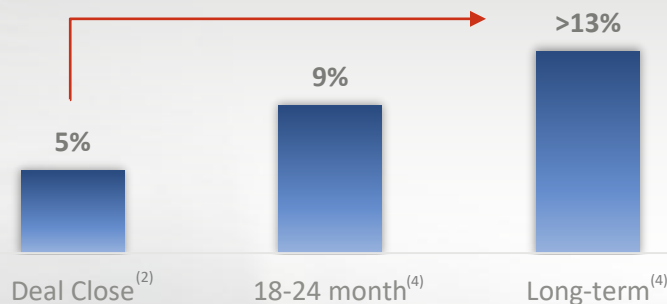
ARTESYN EP GROSS MARGINS



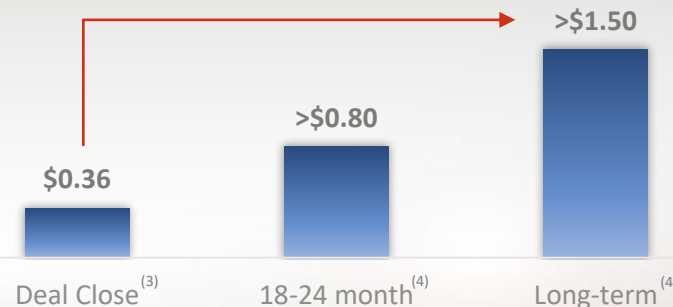
EXPECTED ANNUALIZED SYNERGIES



ARTESYN EP ADJUSTED OPERATING MARGINS<sup>(1)</sup>



PROJECTED EARNINGS ACCRETION



**Target to Meaningfully Accelerate Margin Expansion and Earnings Accretion**

(1) Definition of Artesyn Adjusted financial measures can be found in the non-GAAP and Adjusted Financial Measure statement

(2) Margins at deal close are calculated based on adjusted 2018 results plus costs related to the acquisition

(3) Earnings accretion at deal close are calculated based on 2018 adjusted operating profits plus costs related to the acquisition, the full cost of debt interest expenses, an estimate tax rate of 25% for this business, and AE's reported Q1 2019 diluted share count

(4) 18-24 month and long-term targets are illustrations and should not be treated as forecasts or projections or financial guidance. We cannot assure you that we will be able to accomplish any of these goals, metrics or opportunities at any point in the future (if at all), all of which are subject to significant risks and uncertainties. Please refer to our Safe Harbor statements for more details.

# Deliver Top Quartile Industrial Technology Financial Performance

	Advanced Energy	Artesyn EP	Combined with Synergies <sup>(2)</sup>	Long-term Targets <sup>(3)</sup>
<b>2018 Revenues</b>	\$719 million	\$593 million	\$1,312 million	>\$1,500 million
<b>Gross Profits<sup>(1)</sup></b> <i>Margins %</i>	\$368 million 51.2%	\$140 million 23.5%	\$517 million 39.4%	>40%
<b>Operating Income<sup>(1)</sup></b> <i>Margins %</i>	\$195 million 27.2%	\$30 million 5.1%	\$246 million 18.7%	>20%
<b>EBITDA<sup>(1)</sup></b> <i>Margins %</i>	\$203 million 28.3%	\$55 million 9.3%	\$278 million 21.2%	>23%
<b>Non-GAAP EPS<sup>(1)</sup></b>	\$4.37	+\$0.36	>\$5.17	>\$6.50

**Targeting to Achieve Double-Digit-% Earnings Growth**



(1) These are non-GAAP and Adjusted financial measures; see our non-GAAP statement for additional disclosures around these measures  
 (2) Combined with synergies are hypothetical examples calculated by combining 2018 financials, plus pre-tax synergies of \$20M

(3) Long-term targets and Aspirational Goals are illustrations and should not be treated as forecasts or projections or financial guidance. We cannot assure you that we will be able to accomplish any of these goals, metrics or opportunities at any point in the future (if at all), all of which are subject to significant risks and uncertainties. Please refer to our Safe Harbor statements for more details.

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Enabling Everyday Products*



Thank You



# Non-GAAP and Adjusted Financial Measures

Advanced Energy's non-GAAP measures exclude the impact of non-cash related charges such as stock-based compensation and amortization of intangible assets, as well as discontinued operations, minority interest, and non-recurring items such as acquisition-related costs and restructuring expenses. The non-GAAP measures are not in accordance with, or an alternative for, similar measures calculated under generally accepted accounting principles and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. Advanced Energy believes that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges and other charges which are not part of the company's usual operations. The company uses these non-GAAP measures to assess performance against business objectives, make business decisions, develop budgets, forecast future periods, assess trends and evaluate financial impacts of various scenarios. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. Additionally, the company believes that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. While some of the excluded items may be incurred and reflected in the company's GAAP financial results in the foreseeable future, the company believes that the items excluded from certain non-GAAP measures do not accurately reflect the underlying performance of its continuing operations for the period in which they are incurred. The use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with the company's results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate the company's results of operations in conjunction with the corresponding GAAP measures. Please refer to the Form 8-K regarding this presentation furnished today to the Securities and Exchange Commission.

Artesyn EP's adjusted financial measures, including Adjusted EBITDA, Adjusted Operating Income and Adjusted Operating Margins, exclude the impact of non-cash related charges such as amortization of intangible assets, as well as restructuring expenses, one-time optimization and integration expenses, other income and deductions, management fees to private equity owners of Artesyn, and other non-cash charges. Advanced Energy and Artesyn believe that Artesyn EP's adjusted financial measures are relevant and useful information for the companies and investors to evaluate Artesyn EP's past performance and enterprise value, without the impacts of certain non-cash charges and other charges which are not part of the company's usual operations. Expected synergies and projected earnings accretion stated above are projections based on combination of Advanced Energy's non-GAAP financial measures and Artesyn EP's adjusted financial measures. Neither Advanced Energy nor Artesyn has begun a reconciliation of Artesyn EP's adjusted financial measures to Advanced Energy's non-GAAP measures, and therefore cannot quantify the differences, which may be material. In addition, Advanced Energy will account for the acquisition under the purchase method of accounting, which could result in a new valuation for the assets and liabilities of Artesyn EP. Advanced Energy will not be preparing any pro forma information for the acquisition and financing until the reconciliation and valuation estimates have been prepared.

# Reconciliation of GAAP to non-GAAP\* Measures

## Reconciliation of Non-GAAP measure - operating expenses and operating income, excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2019	2018	2019	2019	2018
Gross profit from continuing operations, as reported	\$ 64,126	\$ 101,235	\$ 65,740	\$ 129,866	\$ 204,880
Adjustments to gross profit:					
Stock-based compensation	55	149	233	288	500
Facility expansion and relocation costs	150	249	170	320	249
Non-GAAP gross profit	64,331	101,633	66,143	130,474	205,629
Operating expenses from continuing operations, as reported	53,121	45,217	53,949	107,070	92,759
Adjustments:					
Amortization of intangible assets	(1,874)	(1,264)	(1,973)	(3,847)	(2,521)
Stock-based compensation	(883)	(1,794)	(2,966)	(3,848)	(5,937)
Acquisition-related costs	(1,531)	(255)	(1,511)	(3,042)	(605)
Facility expansion and relocation costs	—	(13)	(74)	(74)	(489)
Restructuring charges	(1,795)	—	(1,673)	(3,468)	—
Non-GAAP operating expenses	47,038	41,891	45,752	92,791	83,207
Non-GAAP operating income	\$ 17,293	\$ 59,742	\$ 20,391	\$ 37,683	\$ 122,422

## Reconciliation of Non-GAAP measure - operating expenses and operating income, excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2019	2018	2019	2019	2018
Gross profit from continuing operations, as reported	47.6 %	51.6 %	46.7 %	47.1 %	52.3 %
Adjustments to gross profit:					
Stock-based compensation	—	0.1	0.2	0.1	0.1
Facility expansion and relocation costs	0.1	0.1	0.1	0.1	0.1
Acquisition-related costs	—	—	—	—	—
Non-GAAP gross profit	47.7	51.8	47.0	47.3	52.5
Operating expenses from continuing operations, as reported	39.4	23.1	38.3	38.9	23.7
Adjustments:					
Amortization of intangible assets	(1.4)	(0.6)	(1.4)	(1.4)	(0.6)
Stock-based compensation	(0.7)	(1.1)	(2.0)	(1.4)	(1.6)
Acquisition-related costs	(1.1)	(0.1)	(1.1)	(1.2)	(0.2)
Facility expansion and relocation costs	—	—	(0.1)	—	(0.1)
Restructuring charges	(1.3)	—	(1.2)	(1.3)	—
Non-GAAP operating expenses	34.9	21.3	32.5	33.6	21.2
Non-GAAP operating income	12.8 %	30.5 %	14.5 %	13.7 %	31.3 %

## Reconciliation of Non-GAAP measure - income excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2019	2018	2019	2019	2018
Income from continuing operations, less noncontrolling interest, net of income taxes	\$ 23,362	\$ 46,356	\$ 15,379	\$ 38,741	\$ 92,695
Adjustments:					
Amortization of intangible assets	1,874	1,264	1,973	3,847	2,521
Acquisition-related costs	1,531	255	1,511	3,042	605
Facility expansion and relocation costs	150	262	244	394	738
Restructuring charges	1,795	—	1,673	3,468	—
Tax Cuts and Jobs Act Impact	—	—	—	—	1,853
Central inverter services business sale	(14,804)	—	—	(14,804)	—
Tax effect of Non-GAAP adjustments	2,536	(238)	(851)	1,685	(547)
Non-GAAP income, net of income taxes, excluding stock-based compensation	16,444	47,899	19,929	36,373	97,865
Stock-based compensation, net of taxes	722	1,477	2,463	3,185	4,937
Non-GAAP income, net of income taxes	\$ 17,166	\$ 49,376	\$ 22,392	\$ 39,558	\$ 102,802

## Reconciliation of Non-GAAP measure - per share earnings excluding certain items

	Three Months Ended			Six Months Ended	
	June 30,		March 31,	June 30,	
	2019	2018	2019	2019	2018
Diluted earnings per share from continuing operations, as reported	\$ 0.61	\$ 1.17	\$ 0.40	\$ 1.01	\$ 2.33
Add back (subtract):					
per share impact of Non-GAAP adjustments, net of tax	(0.16)	0.08	0.18	0.02	0.25
Non-GAAP per share earnings	\$ 0.45	\$ 1.25	\$ 0.58	\$ 1.03	\$ 2.58



\*non-GAAP measures exclude the impact of non-cash related charges such as stock-based compensation and amortization of intangible assets, as well as discontinued operations, and non-recurring items such as acquisition-related costs and restructuring expenses.