

INDUSTRIAL MANUFACTURING

Q1 & Q2 | 2019

M&A Performance Continues to be Strong Amidst Economic Uncertainty

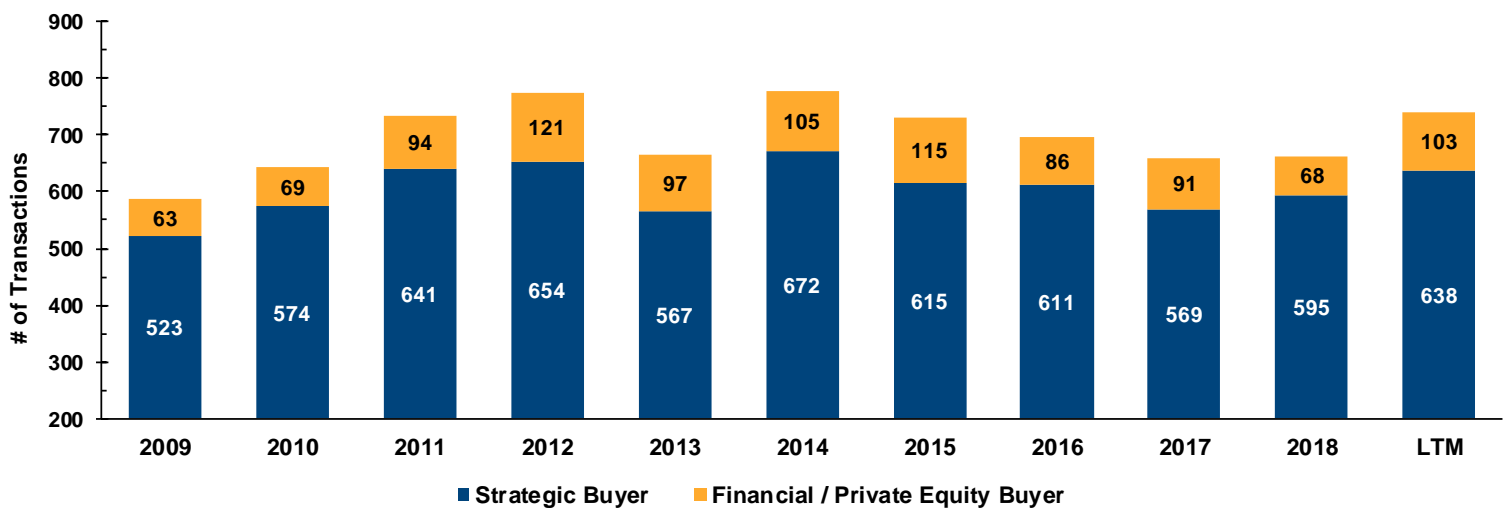
Entering into the 10th year of economic expansion since the Great Recession, the industrial manufacturing sector finds itself in a unique position. In one sense, manufacturing indicators are positive: output is growing, capacity utilization is increasing, and many companies are delivering solid performance results. In another light, the sector lies on the brink of contraction as a result of sustained trade tensions, a struggle for supply chains to keep up with demand, and a gap in middle-skills labor that further threatens productivity.

Despite competing qualitative indicators, industrial manufacturing M&A volume is up nearly 30% through the first six months of 2019 compared to the same period in 2018. Furthermore, equipment utilization increased in the first half of this year suggesting that capital investment will need to pick up to accommodate capacity constraints over the long term. These positive themes are principally due to continued business confidence, strong balance sheets from the 2017 Tax Cuts and Job Act, and lingering trade uncertainties causing a greater focus from U.S. firms to expand production capacity and resources within the country. The latest round of interest rate cuts from the Federal

Reserve makes capital one of the cheapest commodities in the marketplace, and while this may cause speculation that economic contraction is on the horizon, it continues to enable cheap financing to fund acquisitions. The positive transaction activity coupled with some of these economic trends suggests that manufacturers will continue to explore M&A activity as a source of growth.




Industrial manufacturing operators continue to manage their businesses and execute on strategic initiatives in the face of geopolitical uncertainty, creating an expected strong M&A trend for the balance of 2019 and into 2020. Additionally, some manufacturers are pursuing divestitures to clean up their product portfolios and to free up capacity and capital for acquisition opportunities within their core business segments. Therefore, balance sheets remain healthy as manufacturers maintain ample capital to support M&A activity further. Lastly, new fundraising rounds and record levels of dry powder at private equity firms and family offices will keep financial buyers motivated to pursue new platform investments and add-on acquisitions.

Industrial Manufacturing M&A Transactions by Year



Sources: CapIQ, News Releases

Notable Announced or Closed Transactions

Date: 6/9/2019 (Announced)	Overview / Strategic Rationale:	Aerospace & Defense
<p>Target: </p> <hr/> <p>Acquirer: </p> <hr/> <p>Key Metrics: Implied Enterprise Value (mm USD) \$93,172 EV/LTM EBITDA 23.1x EV/LTM Revenue 3.3x</p>	<p>The acquisition of Raytheon by United Technologies results in a premier systems provider positioned to define the future of aerospace and defense. The transaction:</p> <ul style="list-style-type: none"> creates a portfolio of highly complementary technology offerings with world-class engineering teams; forms a balanced and diversified aerospace and defense portfolio that is expected to be more counter-cyclical across business cycles; delivers enhanced value to customers through cost-effective solutions as well as technology-driven cost and revenue synergies. 	
Date: 1/28/2019 (Closed)	Overview / Strategic Rationale:	Automotive & Truck
<p>Target:  Auto Care Brands:   </p> <hr/> <p>Acquirer: </p> <hr/> <p>Key Metrics: Implied Enterprise Value (mm USD) \$1,234 EV/LTM EBITDA 10.5x EV/LTM Revenue 2.7x</p>	<p>Energizer Holdings believes the acquisition of the Global Auto Care Business of Spectrum Brands will create one of the leading suppliers in the auto category with strong commercial relationships. Expected strategic effects of the acquisition include:</p> <ul style="list-style-type: none"> a strong fit with the existing auto care business in air fresheners and appearance with significant channel overlap amongst Energizer's current battery business; it solidifies another platform for further growth with the ability to increase international exposure through the Energizer distribution network; the ability to leverage Energizer's marketing and core research and development competencies to accelerate innovation. 	
Date: 5/15/2019 (Closed)	Overview / Strategic Rationale:	Engineered Products
<p>Target:        </p> <hr/> <p>Acquirer: </p> <hr/> <p>Key Metrics: Implied Enterprise Value (mm USD) \$1,450 EV/2019E EBITDA (net of synergies) 11.0x EV/LTM Revenue 3.6x</p>	<p>Ingersoll-Rand's acquisition of Precision Flow Systems (PFS) accelerates its fluid management strategy with the gain of PFS' mission-critical brands. PFS designs, manufactures, and supports highly engineered positive displacement pumps, boosters, mixers, and systems for water, food & beverage, pharmaceutical, chemical & other process industries, energy, and agriculture end markets. The acquisition:</p> <ul style="list-style-type: none"> enhances Ingersoll Rand's portfolio of core strategic assets; creates a technology leader in the mission-critical fluid management market, proven over more than 75 years; enhances Ingersoll Rand's growth, margins, and earnings while maintaining balance sheet flexibility. 	
Date: 2/1/2019 (Closed)	Overview / Strategic Rationale:	Polymers & Chemicals
<p>Target: </p> <hr/> <p>Acquirer: </p> <hr/> <p>Key Metrics: Implied Enterprise Value (mm USD) \$655 EV/LTM EBITDA 9.9x EV/LTM Revenue N/A</p>	<p>HollyFrontier's acquisition of certain North American and European Sonneborn assets complements its existing business and expands its global footprint by increasing processing and blending capabilities across a diversified portfolio of specialty chemical products. Sonneborn's specialty product portfolio serves many of the largest personal care, cosmetic, pharmaceutical, and food processing companies. The acquisition:</p> <ul style="list-style-type: none"> advances HollyFrontier's downward integration strategy into specialty products; captures Sonneborn's valuable research and development facilities and personnel; expands its differentiated specialty products portfolio and provides extensive customer lists with a broader global distribution network. 	

Sources: Company Filings, CapIQ, News Releases

Select Announced Or Closed Transactions *(Not intended to be all-inclusive)*

Date	Acquirer	Target	Price (\$MM)	EBITDA Multiple	Cross-Border
AEROSPACE & DEFENSE					
Jun 9	United Technologies Corporation	Raytheon Company	\$93,172	23.1x	-
Mar 14	TransDigm Group Incorporated	Esterline Technologies Corporation	4,367	13.0x	-
Jun 17	Sekisui Chemical Co., Ltd.	AIM Aerospace, Inc.	510	-	Yes
Apr 18	Vision Technologies Aerospace Incorporated	MRA Systems, LLC	506	10.0x	-
AUTOMOTIVE & TRUCK					
Apr 30	Caisse de dépôt et placement du Québec; Brookfield Business Partners L.P.	Johnson Controls Power Solutions (nka:Clarios, LLC)	\$11,600	6.9x	Yes
Jan 28	Energizer Holdings, Inc.	Global Auto Care Business of Spectrum Brands Holdings, Inc.	1,234	10.5x	-
May 6	CIE Automotive, S.A.	Roof Systems Business of Inteva Products Inc.	650	-	Yes
Jan 4	Hexagon Composites ASA	Agility Fuel Solutions LLC	124	16.9x	Yes
Apr 1	Valmet Oyj	Groupe Laperriere & Verreault Inc.	113	-	Yes
ENGINEERED PRODUCTS					
May 15	Kurita America, Inc.; Kurita Europe GmbH	Avista Technologies, Inc./Avista Technologies (UK) Ltd	\$9,200	-	Yes
Apr 30	Gardner Denver Holdings, Inc.	Industrial Segment Business of Ingersoll-Rand plc	8,736	-	-
May 15	Ingersoll-Rand Plc	Precision Flow Systems Management Business of Accudyne Industries LLC	1,450	11.0x	Yes
Apr 23	U.S. Based Private Equity Fund	JR Automation Technologies, LLC	1,425	-	Yes
Jan 16	Leggett & Platt, Incorporated	Elite Comfort Solutions LLC	1,256	-	-
Mar 4	Cerberus Capital Management, L.P.	Sparton Corporation	256	9.1x	-
INDUSTRIAL TECHNOLOGY & EQUIPMENT					
Apr 29	Parker-Hannifin Corporation	LORD Corporation	\$3,675	16.5x	-
Apr 1	The Toro Company	The Charles Machine Works, Inc.	700	8.0x	-
May 1	One Rock Capital Partners, LLC	Process Solutions Business of Newell Brands Inc.	500	-	-
Jun 10	Metso Corporation	McCloskey International Limited	455	-	Yes
Apr 8	Montagu Private Equity LLP	Flexographic Packaging Division (nka:Miraclon)	375	11.4x	Yes
Jun 27	Yanmar America Corporation	ASV Holdings, Inc.	107	20.7x	-
POLYMERS & CHEMICALS					
Jul 16	CVC Capital Partners Limited; Messer Group GmbH; CVC Capital Partners VII, LP	Assets in the Americas of Linde Aktiengesellschaft	\$3,300	9.2x	Yes
May 15	KCC Corporation; Wonik QnC Corporation; SJL Partners	MPM Holdings Inc.	2,866	7.4x	Yes
Feb 1	HollyFrontier Refining & Marketing LLC	Sonneborn US Holdings Inc./Sonneborn CoOperatief U.A.	655	9.9x	-
Apr 29	New Mountain Capital Group, L.L.C.	Chemicals Business Assets of ACETO Corporation	442	-	-
Mar 26	Kurita Water Industries Ltd.	U.S. Water Services, Inc.	270	-	Yes
Jan 9	GATX Corporation	Remaining Railcar Assets of ECN Capital Corp.	229	-	Yes
PRECISION MANUFACTURING					
May 31	Prime Equipment Group, Inc.	John Bean Technologies Corporation	\$65	-	-
Apr 29	Assets of Vari-Form Holding US Corp.	FCA Canada Inc.	62	-	-

Sources: EdgePoint Proprietary Database, Company Filings, CapIQ, News Releases

Key Metrics

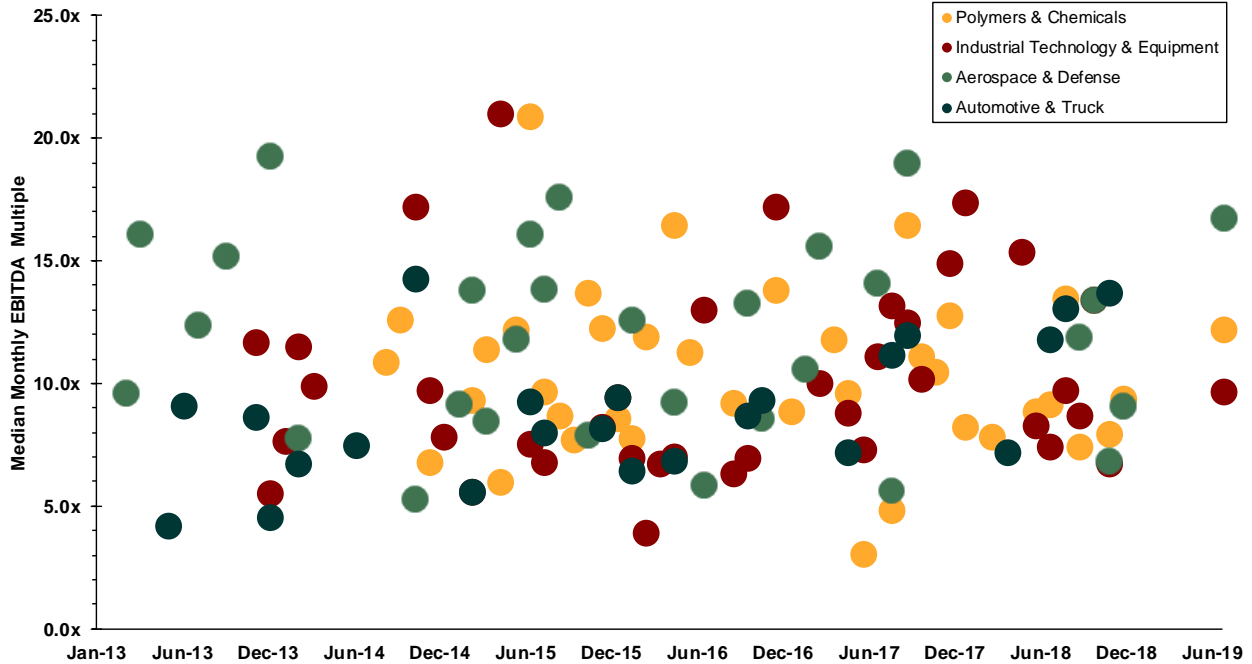
A signal that M&A trends continue to be positive has been the consistent, and in some cases, increasing valuations of transactions (notably in scenarios where metrics were made publicly available). In the first half of 2019, across all manufacturing segments, transactions with reported metrics had a median enterprise value (EV) of \$135 million and an EV to EBITDA multiple of 11.32x, compared to transactions in the first half of 2018, which presented a median EV of \$355 million and EBITDA multiple of 9.31x. As shown in the chart below, when broken out across the various subsegments, some transactions attracted EBITDA multiples of 10-15x or more, demonstrating that some buyers are willing to pay well for the right acquisition targets.

While the above statistics reflect larger middle-market transactions, they nevertheless demonstrate recent trends and the continued motivations buyers have to pursue M&A transactions. As they relate to lower middle-market companies, most

recent M&A valuations revealed differing results. GF Data Resources breaks out the average EBITDA multiples paid by financial buyers for manufacturing companies by transaction size during the year-to-date period ending June 2019 as follows: *Avg. EBITDA multiple of 6.3x for transactions valued at \$10 to \$25 million; 6.6x from \$25 to \$50 million; 6.8x from \$50 to \$100 million; and 8.1x from \$100 to \$250 million.* Compared with 2018, the average EBITDA multiple was the same or higher for transactions in the ranges of \$25 to \$50 million and \$100 to \$250 million, and it was lower for transactions in the ranges of \$10 to \$25 million and \$50 to \$100 million.

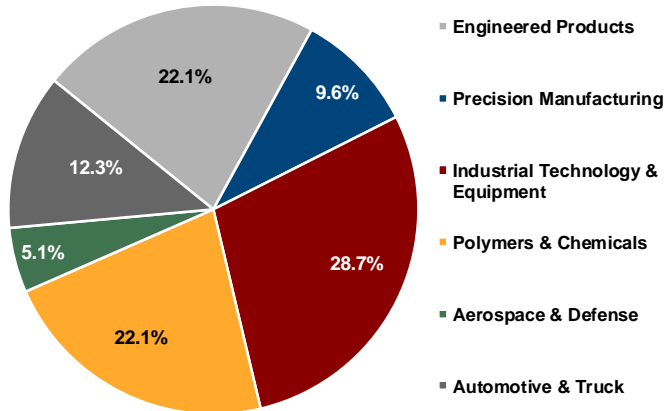
M&A valuations for lower middle-market companies are consistent with the range over the last five years of 6 to 7x EBITDA multiples. This known fact of consistency, coupled with accessible financing, suggests positive momentum for M&A activity to continue.

Select Transaction Multiples

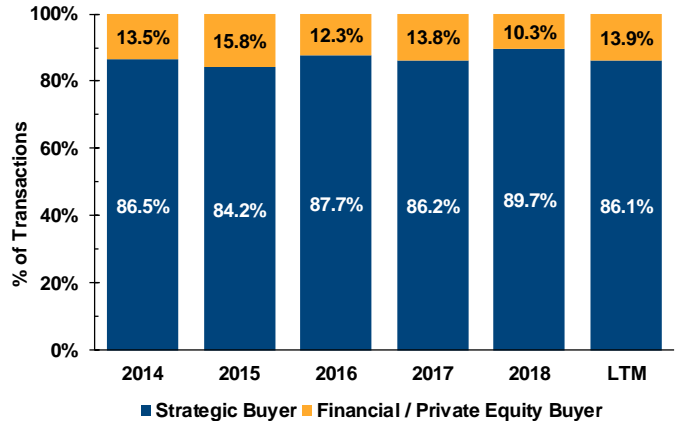


Note: transactions involving Engineered Products or Precision Manufacturers are included in one of the four identified segments based on the seller's end market.

Transactions by Sub-Sector (LTM)



Share of Transactions by Buyer Type



Sources: EdgePoint Proprietary Database, Company Filings, CapIQ, News Releases

Sub-Sector Analysis: Consolidation in the Aerospace Industry — A Longer Lens

The Aerospace industry has experienced a large number of transactions, both large and small, over the past few decades. A few of the larger ones signal a desire for consolidation among industry leaders, while other premier companies in the sector continue to seek attractive acquisition candidates to enhance their product and service offerings. Two notable transactions that have taken place since 2016 are discussed below.



Collins Aerospace Collins Aerospace, formerly known as Rockwell Collins, is a leading provider of communication and aviation systems worldwide, with major segments servicing commercial and business aviation, defense and government, airports, rail, and critical infrastructure. The Company acquired **B/E Aerospace** in April 2017 after announcing the transaction in late 2016. The total purchase price was \$8.1 billion, representing an EBITDA multiple of 13.3x. B/E Aerospace is a leading provider of highly engineered aviation-certified interior aircraft products to a blue-chip customer base of airlines, commercial and business jet original equipment manufacturers (OEMs), aircraft completion centers,






and leasing companies, and it was compelling to Collins Aerospace for a variety of reasons. The combination strengthened its position as a leading supplier of cockpit and cabin solutions. It also increased scale and established a new growth platform, while diversifying and balancing its portfolio across OEMs, airlines, and the aftermarket. Another added benefit for Collins Aerospace is the ability to integrate cabin products, smart network technologies, and connectivity solutions. Plus the transaction was expected to produce approximately \$160 million of run-rate, pre-tax synergies. This was one of the largest transactions in the industry over the prior several years.

Five months later, in September 2017, **United Technologies** announced its intent to acquire **Collins Aerospace**. This transaction closed in November 2018 for \$30.4 billion, representing an EBITDA multiple of 22.6x. The combination established a premier aerospace systems supplier that was well positioned for customer demands. Collins Aerospace expands United Technologies' R&D, electromechanical, and electronics design and software development capabilities. It also provides United Technologies a broader and more capable field support network, and it was expected to produce cost synergies of \$500+ million by Year 4.



M&A has been a big part of the growth story during the past decade for B/E Aerospace, Collins Aerospace, and United Technologies. Below is a selective summary of the aerospace-related transactions completed by these companies.

	Cornell Group of Companies	Year: 2014 Transaction Value: \$138 million
	EMTEQ	Year: 2014 Transaction Value: \$470 million Revenue multiple: 3.1x
	Interturbine Project Management	Year: 2012 Transaction Value: \$200 million
	UCF Aerospace	Year: 2012 Transaction Value: \$400 million EBITDA multiple: 9.5x
	Nelson Aerospace	Year: 2011
	Satari A/S, Aerospace Fastener Distribution Business	Year: 2010 Transaction Value: \$162 million Revenue multiple: 1.6x
	TSI Group	Year: 2010 Transaction Value: \$307 million

	Collins Aerospace	Year: 2017 Transaction Value: \$8.1 billion EBITDA Multiple: 13.3x
	International Communications Group	Year: 2015 Transaction Value: \$64 million
	Pacific Avionics	Year: 2015 Transaction Value: \$24 million
	ARINC	Year: 2013 Transaction Value: \$1.4 billion
	Computing Technologies for Aviation	Year: 2011 Transaction Value: \$11 million
	Blue Ridge Simulation	Year: 2010 Transaction Value: \$6 million
	Air Routing Group	Year: 2009 Transaction Value: \$91 million

	United Technologies	Year: 2017 Transaction Value: \$30.4 billion EBITDA Multiple: 22.6x
	Rockwell Collins	Year: 2017 Transaction Value: \$30.4 billion EBITDA Multiple: 22.6x
	Collins Aerospace	
	Pratt & Whitney	Year: 2014 Acquired majority interest in a Pratt & Whitney joint venture
	GOODRICH	Year: 2012 Transaction Value: \$18 billion EBITDA Multiple: 12.8x
	Raytheon (Defense)	Year: 2019 (Pending) Transaction Value: \$93 billion EBITDA Multiple: 23.1x

Source: CapitalIQ and publicly available information.

Sub-Sector Analysis — Continued: Consolidation in the Aerospace Industry

TRANSDIGM GROUP INC. One of the most active acquirers in the Aerospace industry over the past three decades has been Transdigm, Inc. Headquartered in Cleveland, Ohio, the company is a leading global designer, producer, and supplier of highly engineered aircraft components, systems, and subsystems for use on nearly all commercial and military aircraft in service today. The chart below lists the 64 transactions Transdigm completed between 1993 and the middle of 2019. In the 3rd and 4th quarters of 2018 alone, the company announced or completed four more transactions with a combined value of \$5 billion. These four transactions are highlighted below.

In March 2018, Transdigm acquired Kirkhill-TA Co. from Esterline Technologies for \$50 million, paying a revenue multiple of 0.6x. Kirkhill-TA is a supplier of highly engineered aerospace elastomers. The company’s products are primarily proprietary and sole source with significant aftermarket content, and they are used in a broad variety of major commercial transport and military platforms.

In April 2018, Transdigm completed the acquisition of Extant Aerospace for \$525 million, paying a revenue multiple of 6.2x. Extant Aerospace brings Transdigm a broad range of proprietary aftermarket products and repair and overhaul services for the aerospace and defense end markets.

It currently owns or exclusively licenses more than 2,500 assemblies and subassemblies on over 70 active platforms.



In July 2018, Transdigm completed the acquisition of Skandia, Inc. for \$84 million, paying a revenue multiple of 3.2x. Skandia is a leading provider of highly engineered seating foam, foam fabrication, flammability testing, and acoustic solutions for the business jet market. The company is on all major business jet platforms, including those of Bombardier, Cessna, Dassault, Embraer, and Gulfstream.

Transdigm completed its acquisition of Esterline Technologies Corporation (NYSE: ESL) in March 2019 for \$4.4 billion. The transaction represents EBITDA and revenue multiples of 13x and 2x, respectively. Esterline helps Transdigm to expand its platform of proprietary and sole-source content for the aerospace and defense industries, including significant aftermarket exposure. The acquisition also affords attractive platform positions in both OEMs and the aftermarket, with substantial content on many important commercial aircraft variants, regional and business jet aircrafts, and major defense platforms. Esterline brings Transdigm more than \$2 billion in annual revenue, with 28 business units across eight segments delivering specialty aerospace, defense, and industrial products.

Transdigm has acquired 64 companies since 1993, including 53 since its initial public offering in 2006. The following chart presents acquisitions the company has completed through the middle of 2019.

Privately Held 1993 – 2006	2006 – 2010	NYSE 2011 – 2014	2015 – 2018
<ul style="list-style-type: none"> Adel Aeroproducts Wiggins Controlex Marathon Adams Rite Aerospace Christie Champion Honeywell Lube Pump Fuelcom Norco Avionic Instruments Skurka Fluid Regulators Eaton Motors 	<ul style="list-style-type: none"> Sweeney Electra-Motion CDA InterCorp. Avtech ADS/Transicoil Bruce CEF Unison/GE APC/GE Acme Woodward HRT Dukes Semco Hartwell Electromech Tyee TAC Linread⁽¹⁾ Valley-Todeco⁽¹⁾ AQS⁽¹⁾ 	<ul style="list-style-type: none"> Talley Actuation Schneller Harco AmSafe Passenger Restraints AmSafe Commercial Products AmSafe Cargo Restraints & Specialty Devises Aero-Instruments Beams Aerosonic Arkwin Whippany Actuation Airborne Systems – North America Airborne Systems – Europe Elektro-Metall Export 	<ul style="list-style-type: none"> Telair International AAR Cargo Systems Nordisk Aviation Franke Aquarotter Pexco PneuDraulics Breeze-Eastern DDC Young & Franklin (Tactair) North Hills Cablecraft Aerospace Preece Kirkhill Extant
	<p>McKee/Chine</p>	<p>AmSafe</p>	<p>Telair</p>
			<p>Q1-Q2 2019</p> <ul style="list-style-type: none"> Esterline Technologies

(1) divested in Q2 and Q3 of FY2011.

Source: Transdigm investor presentation dated June 28, 2018 and other publicly available information.

What is EdgePoint Hearing from Industry Leaders...

Industrial manufacturing firms remain committed to value-oriented acquisitions as a core growth avenue to bolster current markets, serve as a launch point into new end markets, and provide additional products and services. Additionally, manufacturers are viewing acquisitions as a way to inherit talent, build for the future, and invest in processes to complete successful integrations. Below are Q&A discussions relating to acquisitions that EdgePoint has observed between key executives on analyst earning calls across the following subsectors: automotive & truck, engineered products, and polymers and chemicals.

Analyst Question: "After recently completing the acquisition of Spectrum Brands' Global Auto Care business, could you provide some insight on the current State of the Union within Energizer?"

Answer: "Our outlook for our categories is positive. In the battery category, we are expecting global battery category volume to be flat to slightly up. In the automotive category, we're also having a positive outlook of up to low single digits growth. We like the subsegments that we're going to be competing in, and Energizer, now with the recent acquisition, is able to cover 100% of the car care task for the categories that we compete in. **Since the acquisition, we have undertaken the completion of stabilizing its Dayton, Ohio facility, which was one of the core issues that needed to be addressed from the transaction. We've also put a number of things in place to improve our overall efficiency in that facility to help offset overflow capacity, in order to make sure the workforce is working more efficiently.**"

FY 2019-Q2 Earnings Call

Automotive & Truck



Alan R. Hoskins

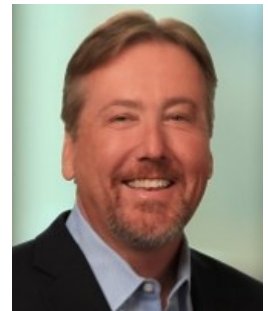
CEO, President & Director

Analyst Question: "Does the M&A strategy focus on the core portfolio within Industrial vs. the broader portfolio at large?"

Answer: "99 percent of anything we are looking at from an M&A standpoint is associated with our core Industrial portfolio: Compression Technologies, Fluid Management, and Two Climate Businesses. We have completed 22 acquisitions over the last five years—most of them have been relatively small transactions within the technology channel. These smaller technology transactions tend to be very accretive, very simple tuck-ins within those businesses. What I would say, though, is that we have developed more of an M&A process around how we think private equity would review the landscape; that is, where to invest capital that will achieve the highest returns for our shareholders. Our M&A process is a competitive process inside the company. For example, if two equally-sized deals were actionable and affordable, we would pursue the transaction with the highest return on invested capital with the least amount of risk."

FY 2019-Q1 M&A Call

Engineered Products



Michael W. Lamach

Chairman & CEO

Analyst Question: "After recently completing the acquisition of Sonneborn, you mentioned that you are still maintaining your desired cash balance target. Is there a desire to continue building your cash balance beyond this level for opportunistic M&A?"

Answer: "We'd love to continue to grow our company as our industry continues to consolidate, as we believe scale will become increasingly important. But having said that, we're not going to add scale simply for scale's sake. We're going to continue to be value-oriented in our approach to acquisitions. Our current \$500 million cash balance is the minimum threshold we like to keep to operate the company. Then once we get above those levels, we start looking at the competition for cash between share repurchases and any acquisition opportunities that we see available to us."

FY 2019-Q1 Earnings Call

Polymers & Chemicals

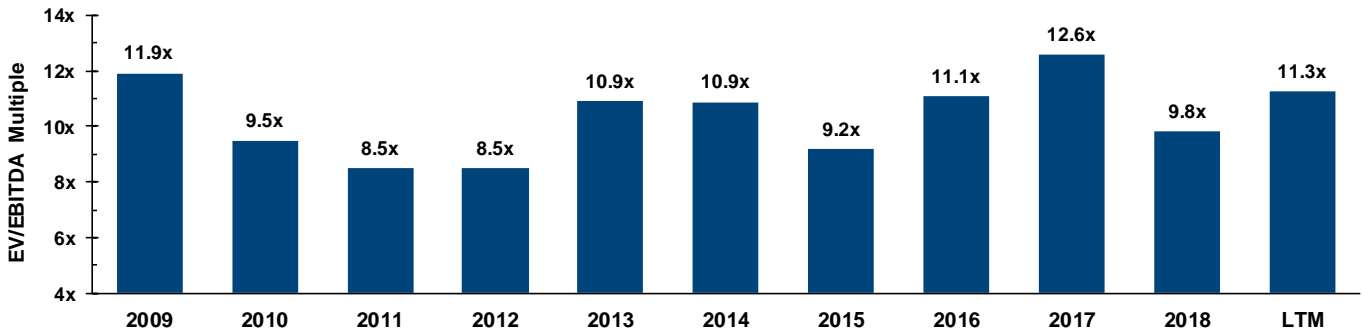


Richard L. Voliva

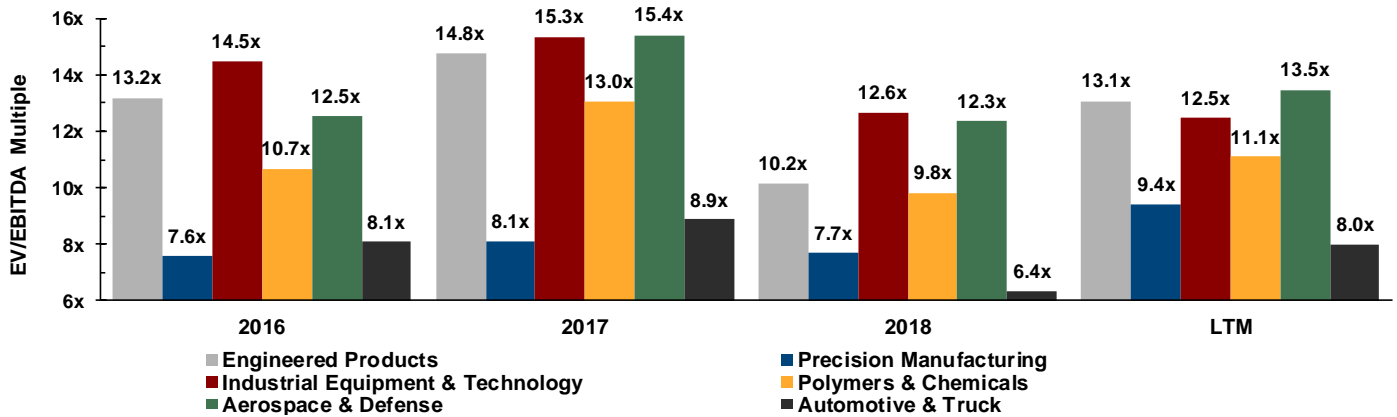
Executive VP and CFO

Public Company Trading Multiples

Industrial Manufacturing Public EV/EBITDA Multiples



Industrial Manufacturing Sub-Sector Public EV/EBITDA Multiples



Source: CapIQ. Note: Multiple of Enterprise Value, or "EV" (Net Debt + Equity) to Earnings Before Interest, Taxes, Depreciation, and Amortization

Selected EdgePoint Industrial Manufacturing Transactions

<p>Automotive & Truck</p> <p>Sell-Side Advisory</p> <p>PTTECH and AEROTORQUE have sold to The TIMKEN Company</p>	<p>Precision Manufacturing</p> <p>Sell-Side Advisory</p> <p>Arc Drilling, Inc. has been recapitalized by Washington Equity Partners</p>	<p>Aerospace & Defense</p> <p>Sell-Side Advisory</p> <p>SIFCO Industries has sold its Applied Surface Concepts business to Norman Hay PLC</p>	<p>Industrial Technology and Equipment</p> <p>Sell-Side Advisory</p> <p>Compass Systems and Sales, Inc. has sold to Alston Capital Partners</p>	<p>Precision Manufacturing</p> <p>Sell-Side Advisory</p> <p>Accu-Tube has sold to Washington Equity Partners</p>
<p>Engineered Products</p> <p>Sell-Side Advisory</p> <p>American Turbocharger Technologies has sold to A. Stucki Company</p>	<p>Precision Manufacturing</p> <p>Sell-Side Advisory</p> <p>Olympic Industries has sold to Tri-W Group</p>	<p>Polymers & Chemicals</p> <p>Sell-Side Advisory</p> <p>Kleen Polymers, Inc. has sold to Preferred Compounding</p>	<p>Polymers & Chemicals</p> <p>Sell-Side Advisory</p> <p>Creative Extruded Products has sold to Quilvest Private Equity</p>	<p>Engineered Products</p> <p>Sell-Side Advisory</p> <p>Aero Transportation Products, Inc. has sold to Wabtec Corporation</p>



EdgePoint is an independent, advisory-focused, investment banking firm serving the middle market.

