

Industrials Update | Q2 2019



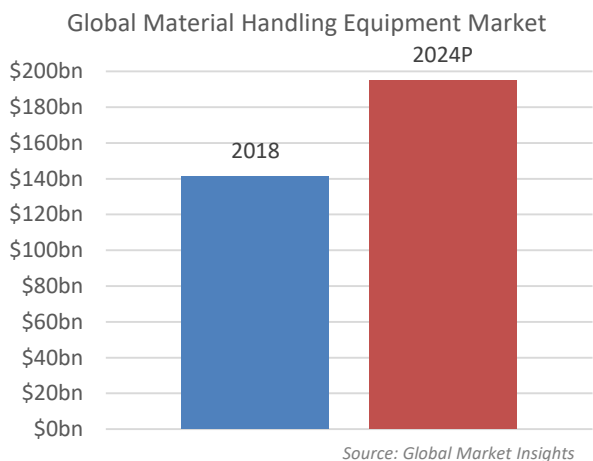
► Introduction and Overview

In this edition of Founders' Industrials Update, we focus our attention on the growing material handling market, including the robotics subsector of the industry. Material handling is a broad sector that underpins much of the manufacturing industry. In this update, we touch on several trends affecting the material handling market, provide a comprehensive, detailed breakdown of the various segments in the sector, highlight key players in the industry, as well as list several of the largest Q2 transactions in the industrials M&A landscape.

Key Trends in Material Handling

► Recent Growth Expected to Continue Over the Long-Term

As seen in the chart below, the material handling sector is projecting continued growth with an estimated CAGR of 5.5% over the forecast period. Growth in automation is a key driving force in the space. The robotic-enabled equipment subsector is projected to grow at an 8% CAGR over the same period.



► Other Trends

Automated material handling solutions are widely hailed as an answer to the difficulty of retaining and recruiting employees, as well as deal with rising labor costs. These trends are playing out across the globe but especially in countries such as China and India which are undergoing significant advances in manufacturing. As these markets mature, they are seeking additional ways to increase manufacturing output and efficiency, largely turning to automated material handling solutions.

► Supply Chain Advancements

Material handling solutions are growing in sophistication in tandem with advances in IoT, RFID, and AI. These technologies are growing in popularity as their ability to directly enhance productivity is increased. The recent increase in supply chain complexity has been matched by a growing number of solutions through 3rd party logistics providers (3PL). These service providers are integrating new technologies to provide real-time systems, enhancing visibility throughout the supply chain.

Industrials Team

Gene Bazemore

ebazemore@foundersib.com

Vaughn McCrary

vmccrary@foundersib.com

David Szell

dszell@foundersib.com

Kendrick Vinar

kvinar@foundersib.com

Nick Pope

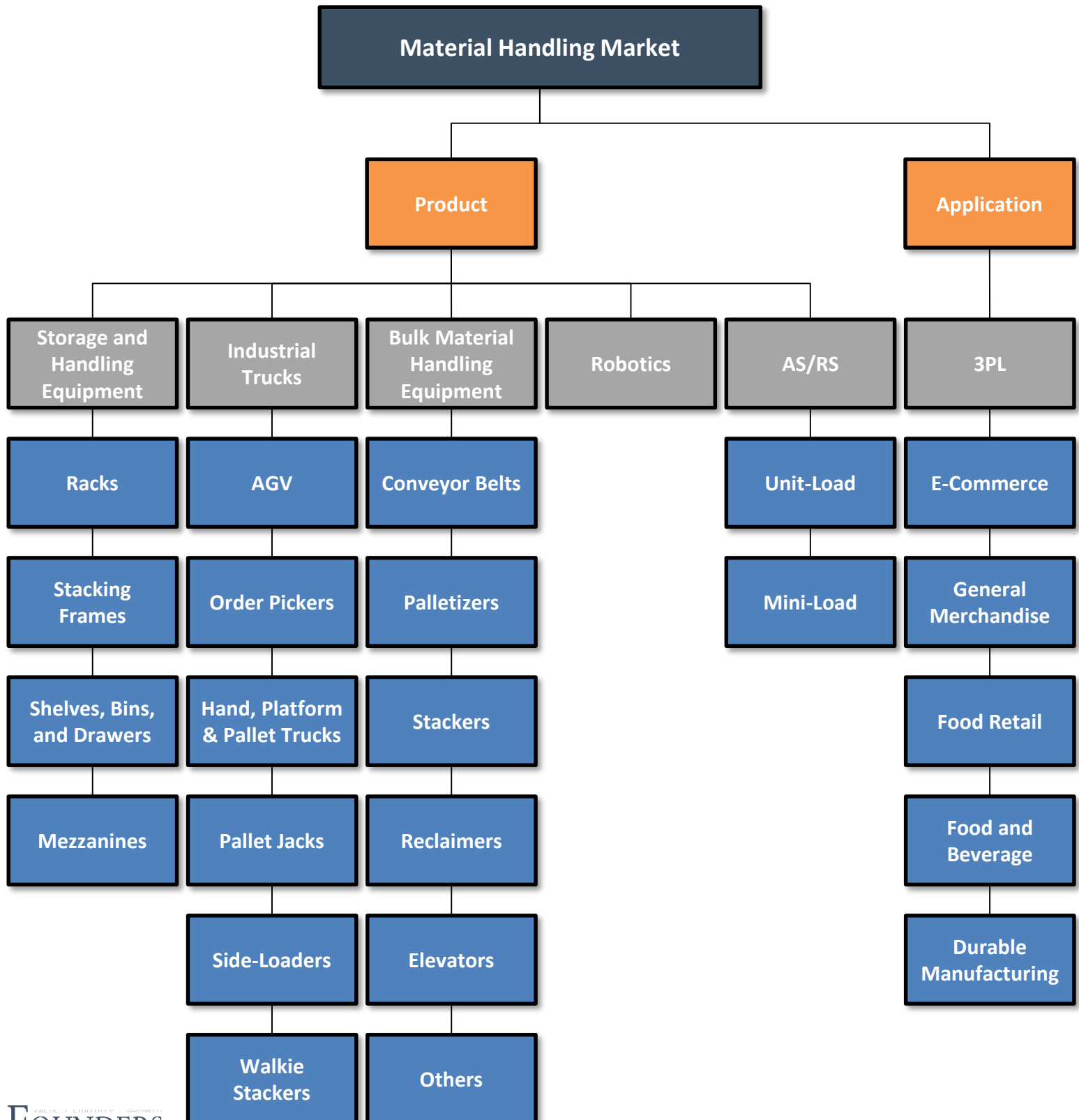
npope@foundersib.com

"We expect sophisticated robotics and automation technologies to become a more and more significant proportion of the material handling market"

Gene Bazemore, Managing Director at Founders Advisors

Material Handling Equipment Market Overview

The graphic below provides an overview to the different product categories and end markets served by the material handling industry. As seen below, material handling covers a broad grouping of products pertaining to the transport of a wide range materials. These services are utilized across a wide variety of end markets.



Material Handling Product Category Breakdown

Building off the graphic on the previous page, we provide a brief explanation of each product category as well as the key players in each category.

Racks

Product Description: Racks are used to store pallets efficiently in warehouses, allowing for easy organization and removal.

Key Players: A&A Surplus, Advance Storage Products, Bulldog Rack Co., Elite Storage Solutions, Everything Warehouse, Global Industrial, Daifuku, SSI Schaefer

Storage and Handling Equipment



Stacking Frames

Product Description: Stacking Frames are load securing devices that allow pallets to be block stacked on the floor.

Key Players: Global Industrial

Shelves, Bins, & Drawers

Product Description: Warehouse shelves and bins organize smaller parts that need storage and easy access.

Key Players: Global Industrial, Quantum Storage, Akro-Mils, Lewis Bins, Orbis, Buckhorn



Mezzanines

Product Description: Mezzanines are raised platforms or intermediate floors used in warehouses to add more space.

Key Players: Stor-Deck, SSI Schaefer, Fabenco, Wildeck

Industrial Trucks

Automated Guided Vehicle (AGV)

Product Description: AGVs are used to consistently and predictably transport loads to places otherwise served by manual/assisted transport.

Key Players: AGVE Group, Transbotics, SSI Schaefer, Kollmorgen, Daifuku, Dematic, Murata Machinery, Swisslog



Order Pickers

Product Description: Electric lift truck designed for filling individual customer orders requiring case picking.

Key Players: Raymond, Toyota, Caterpillar, Crown, Linde, Vanderlande, Murata Machinery, Knapp AG, Swisslog

Hand, Platform, & Pallet Trucks

Product Description: Equipment used to manually transport heavy materials by rolling on wheels.

Key Players: Global Industrial, Harper, Milwaukee, Vestil, Suncast, Eoslift, Sandusky



Pallet Jacks

Product Description: Pallet Jacks are used to lift and move pallets across the warehouse.

Key Players: Global Industrial, Toyota, Crown, Vergo, Sandusky, Jet, Eoslift, Vestil

Material Handling Product Category Breakdown (cont.)

Industrial Trucks (cont.)

Side-Loaders

Product Description: Side-loaders are industrial trucks with lifting capabilities and the ability to work in narrow aisles.

Key Players: Raymond, McNeilus, Combilift, Baumann, Hubtex



Walkie Stackers

Product Description: A walkie is an electric-powered lift truck (or forklift) operated by a person on foot.

Key Players: Raymond, Vestil, PrestoLifts, Toyota, Crown, Blue Giant



Bulk Material Handling Equipment

Conveyor Belts

Product Description: Conveyor belts are to transport boxes and materials either manually or automatically.

Key Players: Hytrol, Ashland, Westfalia, Daifuku, Dematic, Honeywell, Knapp AG, Beumer, MHS



Palletizers

Product Description: Palletizers provide automatic means for stacking goods onto a pallet.

Key Players: Columbia, Bastian Solutions, Delkor, Douglas, Honeywell

Stackers

Product Description: Stackers are used for racking, loading, and unloading materials.

Key Players: Raymond, PrestoLifts, Vestil, Big Joe, Wesco



Reclaimers

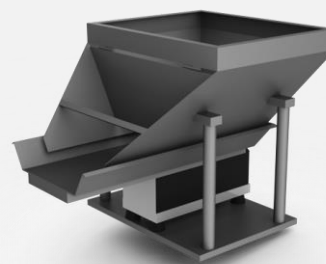
Product Description: A reclaimer handles and removes bulk material from a large stockpile.

Key Players: Thyssenkrupp, ADJ, Tenova, Tidfore

Elevators

Product Description: Elevators provide efficient access to mezzanines and other storage levels.

Key Players: CITI, Pflow, Thyssenkrupp



Others

Product Description: Products like Hoppers and Silos temporarily store bulk materials during processing.

Key Players: Vestil, Jescraft, Zoro, Wright, Foremost

Material Handling Product Category Breakdown (cont.)

Robotics

Product Description: Material handling robots can automate the most tedious and unsafe tasks in a production line and enhance the efficiency in part selection and transferring, packing, and machine loading.

Key Players:

Kawasaki, FANUC, Yaskawa Motoman, ABB, KUKA, Universal Robots, Dematic, Honeywell, Vanderlande

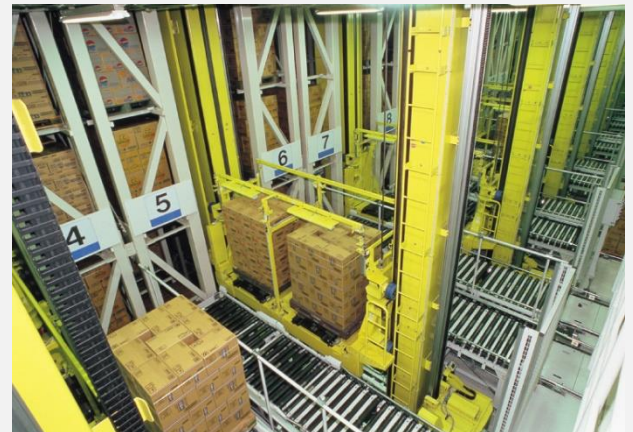


Automated Storage / Retrieval Systems (AS/RS)

Unit-Load

Product Description: Typically handles larger loads of goods and material (000s of lbs), often moving full pallets and cases.

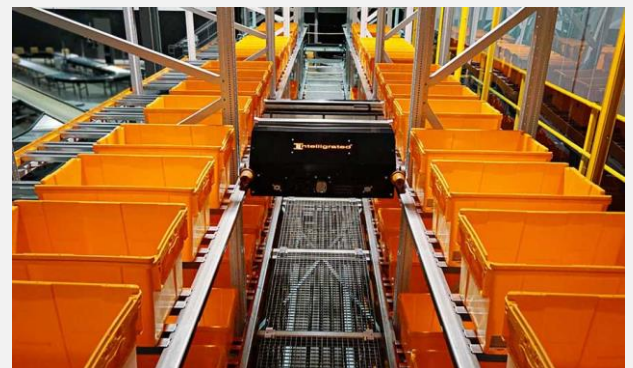
Key Players: *Bastian Solutions, UNARCORACK, Dematic, Invata Intralogistics, Cisco-Eagle, DAIFUKU, Engineered Products, Honeywell, Murata Machinery, Swisslog, MHS*



Mini-Load

Product Description: Handles smaller loads of product compared to unit-load AS/RS, working with totes, trays, and cartons.

Key Players: *DAIFUKU, Bastian Solutions, UNARCORACK Wynright, Interlake Mecalux, Dematic, Abel Womack, Honeywell, Murata Machinery, Swisslog, MHS*



Top Material Handling System Suppliers

Below we highlight the largest players in the material handling sector. We cover their recent growth, number of acquisitions in the last three years, location, and key products. These companies are dominant players in the space and lead the market in technology development and acquisition of competitors.

Company	2017 Revenue	2018 Revenue	% Change 2017-18	Acquisitions (3 Yr History)	Employees	Headquarters	Key Material Handling Products
Daifuku	\$3,659	\$4,167	13.9%	2	9,193	Osaka, Japan	AS/RS, Racking, Conveyors, AGV
Schaefer Holding International	\$3,060	\$3,217	5.1%	5	10,500	Neunkirchen, Germany	Racking, Mezzanine, AGV
Dematic	\$2,267	\$2,350	3.7%	5	2,596	Atlanta, Georgia	AGV, Conveyors, Robotics
Honeywell Intelligrated	\$1,000	\$1,700	70.0%	17	2,912	Mason, Ohio	AS/RS, Robotics, Conveyors
Vanderlande Industries	\$1,538	\$1,538	0.0%	3	1,270	Veghel, The Netherlands	Pickers, Robotics
Murata Machinery	\$1,287	\$1,287	0.0%	3	3,250	Kyoto, Japan	AS/RS, Pickers, AGV
Knapp AG	\$643	\$1,050	63.3%	2	4,200	Hart bei Graz, Austria	Conveyors, Pickers, Stackers
Beumer Group	\$900	\$1,000	11.1%	0	4,060	Beckum, Germany	Palletizing, Conveyors
Swisslog	\$915	\$923	0.9%	7	2,500	Buchs, Switzerland	AS/RS, Pickers, Palletizing, AGV
Material Handling Systems (MHS)	N/A	\$860	N/A	5	2,000	Mt. Washington, KY	Conveyors, AS/RS

Source: Modern Materials Handling

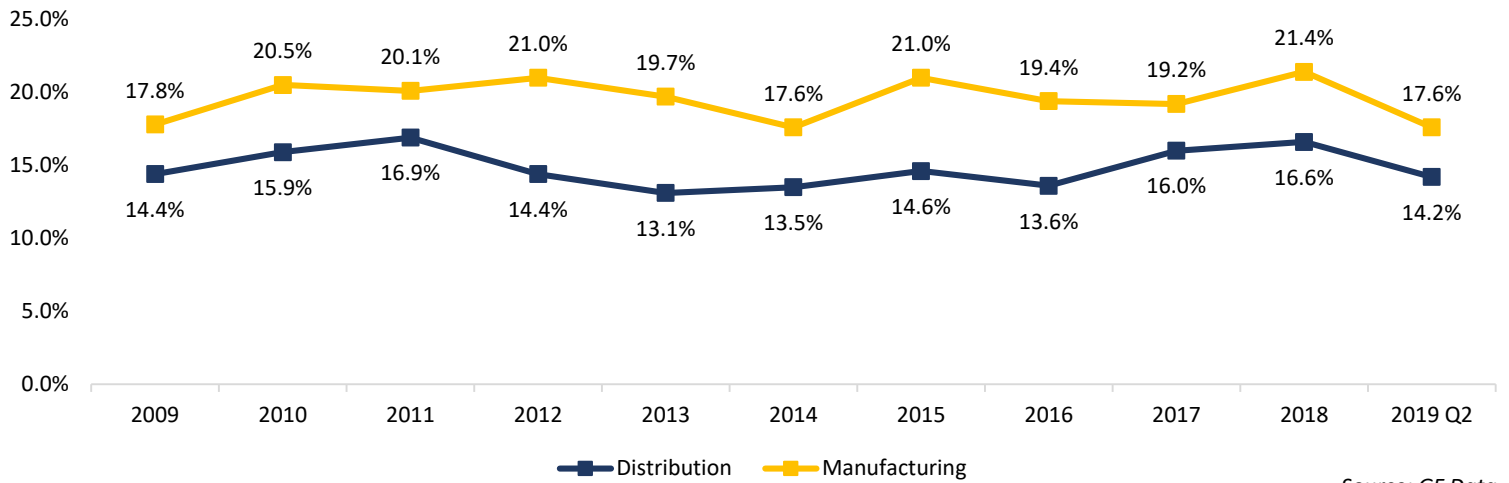
Select Q2 Industrial M&A Transactions

Date	Target Name	Buyer Name	Transaction Value (\$mm)	EV / Revenue	EV / EBITDA	Target Business Description
6/17/2019	COBEX HoldCo GmbH	Tokai Carbon Co., Ltd.	\$825	3.5x	10.9x	COBEX HoldCo GmbH develops, manufactures, and distributes graphite and carbon products.
6/13/2019	Società Iniziative Autostradali e Servizi S.p.A.	ASTM S.p.A.	\$1,026	3.4x	6.6x	Società Iniziative Autostradali e Servizi S.p.A., through its subsidiaries, constructs and operates licensed motorways in Italy and internationally.
6/10/2019	Jiangsu Yulong Steel Pipe Co., Ltd.	Shanghai Houai Technology Co., Ltd.; Ningbo Huanxi Industrial Co., Ltd.	\$1,636	3.6x	NM	Jiangsu Yulong Steel Pipe Co., Ltd. produces and sells steel pipes in China and internationally.
6/9/2019	Raytheon Company	United Technologies Corporation	\$91,065	3.3x	23.1x	Raytheon Company develops integrated products, services, and solutions for the defense and other government markets worldwide.
5/30/2019	Eaton Towers Limited	ATC Heston B.V.	\$1,850	N/A	N/A	Eaton Towers Limited, a telecom tower company, acquires, builds, and leases shared infrastructure services to mobile and data network operators.
5/16/2019	Howden Group Ltd.	KPS Capital Partners, LP	\$1,800	N/A	9.0x	Howden Group Ltd. designs and manufactures air and gas handling equipment.
5/9/2019	Holcim Philippines, Inc.	First Stronghold Cement Industries Inc.	\$2,150	3.2x	20.8x	Holcim Philippines, Inc. primarily manufactures, sells, distributes, and exports cement and cementitious products in the Philippines and internationally.
4/30/2019	Industrial Segment Business of Ingersoll-Rand plc	Gardner Denver Holdings, Inc.	\$8,736	N/A	N/A	Industrial Segment Business of Ingersoll-Rand plc comprises mission-critical flow control and compression equipment manufacturing operations.
4/29/2019	LORD Corporation	Parker-Hannifin Corporation	\$3,675	3.6x	16.5x	LORD Corporation develops, manufactures, and markets adhesives, coatings, motion management devices, and sensing technologies.
4/23/2019	JR Automation Technologies, LLC	Hitachi, Ltd.	\$1,425	2.4x	N/A	JR Automation Technologies, LLC designs, builds, manufactures, and distributes automated equipment for various industries.
4/17/2019	DuluxGroup Limited	Nippon Paint Holdings Co., Ltd.	\$4,299	2.3x	16.5x	DuluxGroup Limited manufactures, markets, sells, and distributes paints, coatings, adhesives, and garden care and other building products in Australia, New Zealand, Papua New Guinea, South East Asia, China, and the United Kingdom.
4/10/2019	Global Brass and Copper Holdings, Inc.	Wieland-Werke AG	\$1,210	0.7x	10.1x	Global Brass and Copper Holdings, Inc. converts, fabricates, processes, and distributes specialized non-ferrous products in the United States, the Asia Pacific, and Mexico. It operates in three segments: Olin Brass, Chase Brass, and A.J. Oster.

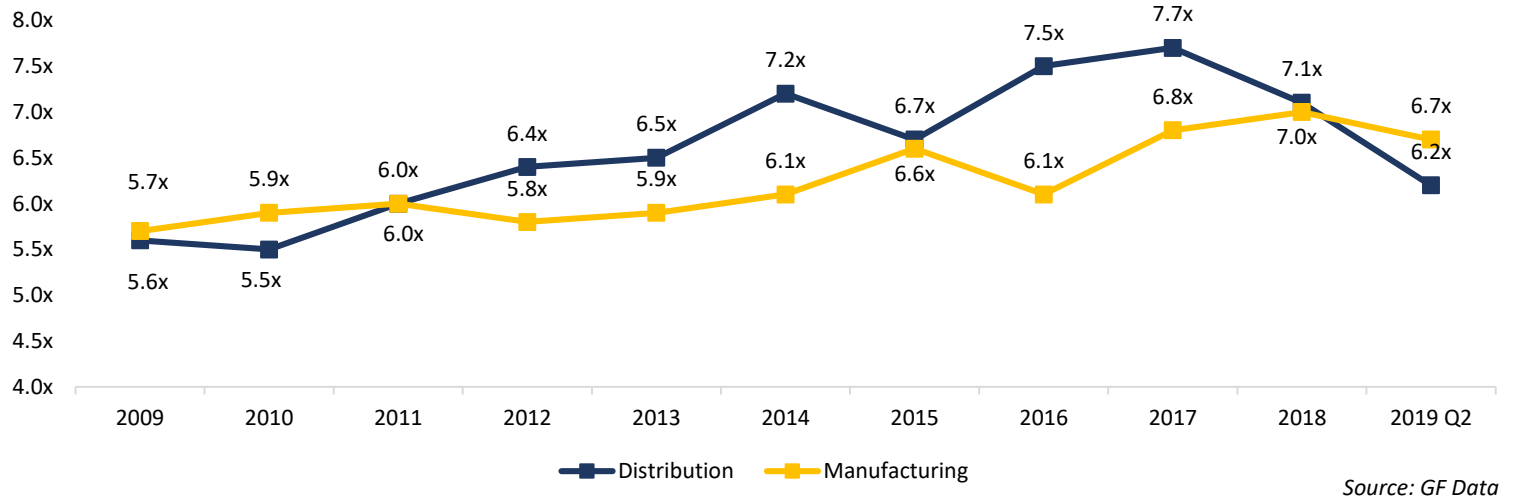
Multiples are calculated using LTM figures
Sources: CapitalIQ, PWC Industrial Products Reports

Middle Market M&A Transaction Statistics

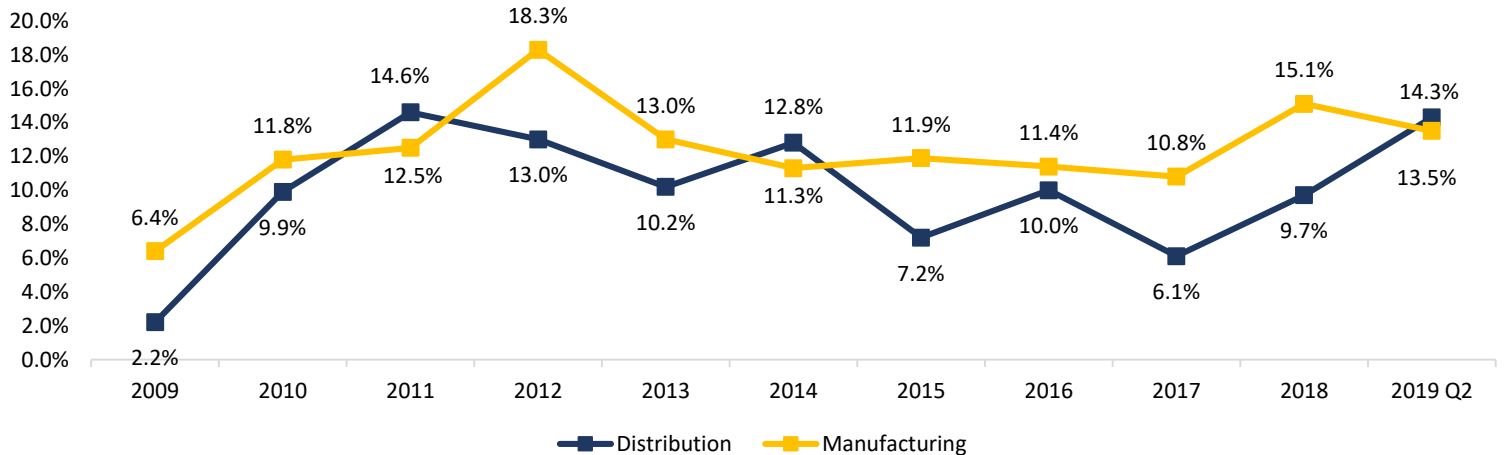
Private Equity Sponsored Middle Market Transaction EBITDA Margins



Private Equity Sponsored Middle Market Transaction EBITDA Multiples



Private Equity Sponsored Middle Market Transaction TTM Revenue Growth



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Contact

For more information, visit www.foundersib.com, call us at 205.949.2043, or contact the Industrials team directly by email:

Industrials

Gene Bazemore, Managing Director
ebazemore@foundersib.com

Vaughn McCrary, Vice President
vmccrary@foundersib.com

David Szell, Senior Analyst
dszell@foundersib.com

Kendrick Vinar, Senior Analyst
kvinar@foundersib.com

Nick Pope, Analyst
npope@foundersib.com

Industrial Services

John Sinderson, Managing Director
jsinderson@foundersib.com

John W. Sullivan, Vice President
jsullivan@foundersib.com

Evan H. Klisares, Associate
eklisares@foundersib.com

Tripp Salem, Associate
tsalem@foundersib.com

Randy Freeman, Analyst
rfreeman@foundersib.com

HOUSTON

4265 San Felipe Street, Suite 1100
Houston, TX 77027
Phone: 713.968.9840

BIRMINGHAM

2204 Lakeshore Drive, Suite 425
Birmingham, AL 35209-8855
Phone: 205.949.2043

DALLAS

180 State Street, Suite 225
Southlake, TX 76092
Phone: 214.295.1055