



MERIDIAN CAPITAL  
INVESTMENT BANKERS

Aerospace | SUMMER 2017  
M&A UPDATE



# Meridian Capital Overview



## Exceptional Results Delivered

- Over \$5B in transaction experience
- Trusted advisor to leading middle market companies
- Focus on businesses with \$20M to \$500M+ in enterprise value
- 20+ years experience with complex corporate finance and M&A challenges
- 18 seasoned professionals with finance, operational, and legal backgrounds

### Deep Industry Insights

- ❑ Dedicated industry teams
- ❑ Holistic industry coverage
- ❑ Deep buyer relationships

### Transaction Expertise

- ❑ M&A
- ❑ Equity/Debt Capital Raises
- ❑ Strategic Advisory

### Customized Processes

- ❑ High Touch Approach
- ❑ Multidisciplinary Deal Team
- ❑ End-to-end Service

## AEROSPACE EXPERTISE



Aerospace Components



Precision Machining and Assembly



MRO Components and Services



Automation and Tooling Services



Avionics



Composites

# Meridian's Aerospace Team

## Transaction Leadership & Execution

### Brian Murphy

President and Managing Director  
Aerospace Practice Lead



### Patrick Ringland

Managing Director



### Nick Colmenero

Senior Associate



### Aaron Franzheim

Analyst



## Operational Experience

### Mark Mennella

Industry Advisor – Aerospace



### Years Experience

13 years – M&A and corporate finance

13 years – M&A and corporate finance

6 years – Investment Banking and Corporate Development

3 years – Investment Banking

5 years – M&A

30+ years – Executive

### Background

• Redlands (BS, BS)

• Washington (BA, BS)  
• Chicago Booth (MBA)

• Washington (BBA)

• Washington (BBA)

• Washington (BBA)  
• Seattle University (MBA)

### Prior Experience

• Accenture

• The Brattle Group  
• HSBC  
• LECG

• Starbucks (Corporate Development and Business Alliances)  
• JP Morgan

• Financial Technology Partners

• ZMAN Magnetics (CEO)  
• Stanley Garage Door (President and CFO)  
• Coastcraft, Inc.



# International Aerospace Connections

## Global M&A

Meridian Capital is a founding member of Global M&A Partners, a global partnership of independent, middle-market investment banking firms. Established in 1999, the partnership includes 34 investment banks with more than 200 M&A professionals transacting in over 50 countries. Combined the partnership has successfully completed over 1,500 transactions with combined value in excess of \$50 billion over the past five years. Meridian is a leading member of the partnership's Aerospace Coverage Team.

## Aerospace Coverage Team Highlights

- Significant aerospace operational and transaction experience
- Global coverage across key geographic markets (50+ countries)
- Unmatched strategic relationships and investor access across aerospace industry
- Leading research and thought leadership

## GM&A Partners Aerospace Coverage Team Leadership Group



Noel Forgeard  
*France*

Sector Team Lead  
Former Chairman & CEO -  
Airbus



Brian Murphy  
*USA*

North American Sector  
Team Lead



Clive Snowden  
*UK*

Senior / Operations Advisor  
Chairman – Shimtech  
Chairman – MAA



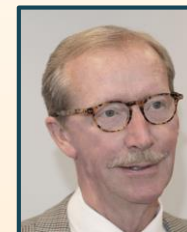
Christian Kollmann  
*Germany*

Managing Partner,  
Aerospace & Defense



Philippe DOre  
*France*

Managing Partner,  
Aerospace & Defense



Ulf Hoyen  
*Nordic Region*

Managing Partner,  
Aerospace

**Global M&A Partners is a leading independent M&A advisory group.**

*Meridian Capital is a founding member*

# Meridian Aerospace and Defense Transaction Experience

**Thortex**



Leading manufacturer of aerospace and orthopedic components

- Acquired By -




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**HR Givon**



Manufacturer precision machined parts for the aerospace and defense industries

- Acquired By -




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**J&M Machine**



Manufacturer of precision machined aerospace parts

- Acquired By -




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**Procesos Termicos**



Mexico-based provider of machining and special processing services

- Acquired By -




MERIDIAN CAPITAL INVESTMENT BANKERS

**JL Manufacturing**



Manufacturer of precision machined components for the aerospace and defense industries

- Acquired By -




MERIDIAN CAPITAL INVESTMENT BANKERS

**Imaginetics, Inc.**




Tier 1 manufacturer of precision components for the aerospace and defense industries

- Acquired By -





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**AVIC International**



Manufacturer and installer of production and assembly lines

- Buy-Side Advisory Services -



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**Mobile Tool Management**



Manufacturer of robotics for the aerospace industry

- Growth Capital Provided By -




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**Pacific Aerospace & Electronics**



Manufacturer of precision electronic aerospace, medical, and industrial products

- Financial and Buy-Side Advisory Services -



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**VIOX Corporation**



Manufacturer of glass/ceramic compositions for electronic, industrial, and healthcare markets

- Acquired By -




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**Dynamic Ceramic**



Leading UK manufacturer of advanced ceramics

- Acquired By -




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**FACC Aerospace**




Austrian manufacturer of composite aerospace components & systems

- Financial and Buy-Side Advisory Services -



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**Mold Rite**



Injection moldings for aerospace, medical, and consumer products

- Acquired By -

Sound Rite  
Plastics, Ltd.



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**Loxin**




Design and manufacture of large machine tools for the aerospace and railway sectors in Spain

- Acquired By -






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**Airline Services Holdings**



Maintenance, repair and overhaul services to airlines and aviation businesses in the U.K.

- Management Buyout Backed By -

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**Superior Tube and Fine Tubes**



Manufacturer of small diameter welded tubing products primarily for the aerospace industry

- Acquired By -




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**E. Winkemann GmbH & Co. KG**



Manufacturer of precision metal parts for the aerospace industry

- Acquired By -




GLOBALM&A PARTNERS

**Hutchinson SA**



Manufacturer of thermal and acoustics insulation materials

- Buy-Side Advisory Services -



GLOBALM&A PARTNERS



# M&A Trends, Activity and Public Comps

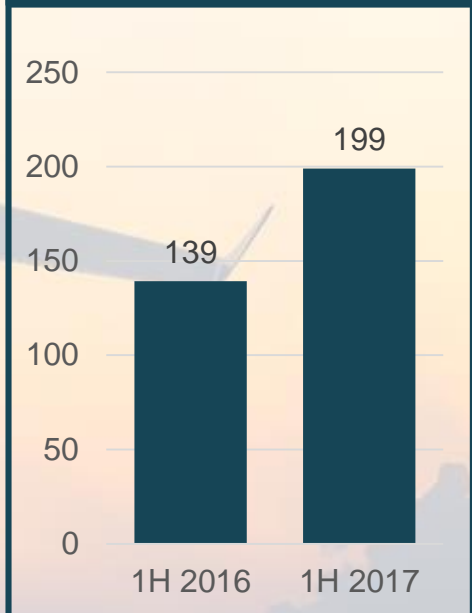
# Industry M&A Trends

*Twice a year, Meridian Capital publishes its Aerospace and Defense M&A Update, which focuses on key trends in the aerospace and defense M&A market. The Summer edition focuses on consolidation in the supply chain, continued interest in proprietary content and cross border acquisitions, and Boeing's potential impact on the maintenance repair and overhaul market.*

## Aerospace M&A Activity Remains Strong During First Half of 2017

- ❑ In the first half of 2017, aerospace and defense M&A volume remained well above the historical 10-year average despite slowing order activity and continued cost pressures on the supply chain.
- ❑ During the first six months of 2017, aerospace and defense transaction volume was down slightly from the second half of 2016, with 199 transactions compared to 227. However, year-over-year, transaction volume was up 43% compared to the first half of 2016. Strong activity across the commercial components/subsystems and composites segments have served as transaction drivers.
- ❑ Near-term M&A activity in the industry will likely benefit from the positive momentum established during the Paris Air Show, where order activity for both narrow body commercial and defense aircraft was stronger than expected.
- ❑ Given recent order momentum, in addition to strong long-term air traffic and build rate forecasts, we expect several trends to drive continued industry consolidation activity in the second half of 2017.

### YoY Transaction Volume





# Industry M&A Trends

## OEM Build Rate Increases Continue to Stress Supply Chain

- ❑ Both Boeing and Airbus continue to look for ways to aggressively cut costs and increase build rates on key platforms. The price and order competition on comparable platforms such as the 737 vs. A320 and 787 vs. A350 remains fierce. After several years of embracing an expanded supplier base, both OEMs are driving their respective supply chains to consolidate so they can regain control over technological capabilities, cost, and capacity.
- ❑ As a result, suppliers are faced with the challenge of substantially building production capacity while simultaneously providing near-term price reductions. This is driving key suppliers to make significant investments in equipment, systems, and acquisitions to expand capabilities and/or enhance automation.
- ❑ While large Tier I suppliers such as Spirit, Safran, and Triumph have the resources to support these demands, the competitive dynamic presents a challenge for small to mid-sized Tier I and Tier II suppliers with more limited financial resources.

## M&A Interest Focused on Proprietary Content and Cross Border Activity

- ❑ Key strategic investors and industry focused private equity firms continue to communicate a strong M&A appetite. In particular, as the commercial build-to-print market has become increasingly competitive, investors are aggressively seeking opportunities that offer proprietary content, an MRO offering, or unique manufacturing capabilities.
- ❑ Several well-established, Tier I Airbus suppliers based in Europe and Asia are seeking U.S. acquisitions with direct relationships with North American OEMs.
- ❑ These investment rationales, coupled with the pricing and build-rate pressures outlined above, are likely to lead to continued industry consolidation over the next 12 months.

## Boeing's Impact on the MRO Market

- ❑ Boeing has set the stage for the launch of its new Global Services business that aims to capture a large share of the global maintenance, repair, and overhaul ("MRO") market. Specifically, Boeing is aggressively targeting to reach \$50 billion in MRO revenue within the next 10 years.
- ❑ Historically, the MRO market has been highly fragmented with airlines valuing characteristics such as flexibility, responsiveness, and competitive pricing often associated with smaller, independent companies. Boeing intends to address these customer needs through an internal reorganization as well as through selective acquisitions.
- ❑ Boeing's rejuvenated commitment to the MRO market will likely drive consolidation at all levels as companies look to position themselves to protect market share and expand differentiated capabilities.



# Select Transaction Case Studies



Acquired in June 2017



**Target Description:** Offers repair, troubleshooting, and maintenance of turbine engine and aircraft.

**Investment Rationale:** Further positions Kellstrom Aerospace Group as a global leader in the aircraft lifecycle solutions industry and builds upon the Company's diverse service offerings.

**Buyer Quote:** "With Vortex Aviation joining Kellstrom Aerospace Group, our range of technical services is greatly enhanced." - Jeff Lund, CEO of Kellstrom Aerospace Group.



Acquired in April 2017



**Target Description:** Washington-based designer, engineer, and manufacturer of digital in-flight entertainment and cabin management systems (IFE/CMS) for the corporate, private, and VIP aircraft industry.

**Investment Rationale:** The addition of CCC furthers Astronics' commitment to be the global leader in the global aerospace advanced technologies market as it recovers in the coming years.

**Buyer Quote:** "We believe the cooperative pursuits of PGA and CCC working together will provide best-in-class technology and innovation to our customers." - Peter Gundermann, CEO of Astronics Corporation.



Acquired in February 2017



Meridian Capital served as the exclusive financial advisor to HR Givon

**Target Description:** A leading manufacturer of metallic aerostructure parts and subassemblies.

**Investment Rationale:** Allows Wipro to gain access to North American OEMs and to capitalize on global supply chain trends.

**Buyer Quote:** "We see cross-synergies in customer relationships, products and technology that can be leveraged to strengthen our presence in the growing Aerospace sector and become a partner of choice for global OEMs and Tier-1s." - Sunil Rajagopalan, business head (Aerospace) of Wipro.



Acquired in February 2017



**Target Description:** Engages in the designing, manufacturing, and distribution of aerospace, defense, medical, and industrial composites.

**Investment Rationale:** Liberty Hall seeks to build a fully-integrated, diversified composites supplier through organic investments and strategic acquisitions.

**Buyer Quote:** "Composites represent one of the fastest growing, and evolving, segments within the aerospace industry." - Rowan Taylor, Founding Partner of Liberty Hall Capital Partners.

# Notable Recent Transactions

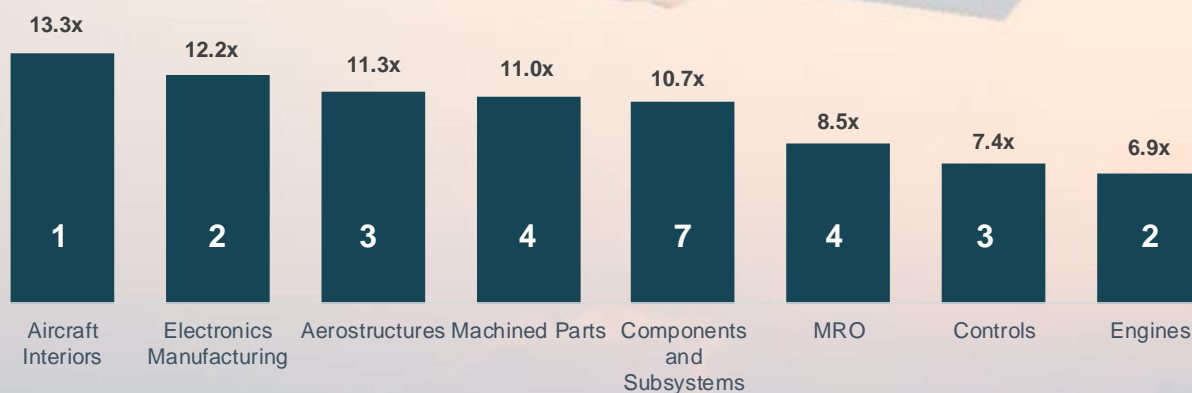
Date	Target	Buyer	Segment	EV (\$M)	EV/ Revenue	EV/ EBITDA
Jul-17	Vector Aerospace Corporation	DAE Aviation Holdings, Inc.	MRO	-	-	-
Jun-17	Vortex Aviation Inc.	Kellstrom Aerospace, LLC	MRO	-	-	-
Jun-17	Space-Lok, Inc.	Novaria Fastening Systems LLC	Components & Subsystems	-	-	-
Jun-17	Aernnova Aerospace S.A.	TowerBrook Capital Partners L.P.; Torreal, SCR, S.A.; Peninsula Capital Advisors LLP	Aerostructures	-	-	-
Jun-17	Dunlop Aircraft Tyres Limited	Liberty Hall Capital Partners, L.P.	Components & Subsystems	135.0	-	-
Jun-17	Halo Industires, Inc.	Elite Aerospace Group, Inc.	Machined Parts	-	-	-
Jun-17	Fore Machine Company, Inc.	P4G Capital Management, LLC	Components & Subsystems	-	-	-
Jun-17	Aero Components Inc.	P4G Capital Management, LLC	Components & Subsystems	-	-	-
Jun-17	Graco Supply Company Inc., Ball Ground Aircraft Sealand Repackaging Business	Royal Adhesives & Sealants, LLC	Composites	-	-	-
Jun-17	Three Add On Aerospace Product Lines	TransDigm Group Incorporated (NYSE:TDG)	Controls	100.0	3.1x	-
May-17	SMTC SAS	Aircraft Interior Products	Composites	-	-	-
May-17	Classic Precision Inc.	Hosco Finishing LLC	Engines	-	-	-
May-17	BEI Precision Systems & Space Co. Inc.	J.F. Lehman & Company, Inc.	Components & Subsystems	-	-	-
May-17	Dallas Aeronautical Services, LLC	West Star Aviation, Inc.	MRO	-	-	-
May-17	PolyAero Inc.	Apollo Aerospace Components Limited	Components & Subsystems	10.5	-	-
Apr-17	Whitcraft LLC	Greenbriar Equity Group LLC	Machined Parts	-	-	-
Apr-17	Custom Control Concepts	Astronics Corporation (NASDAQ:ATRO)	Components and Subsystems	10.7	-	-
Mar-17	Kineco Kaman Composites - India Private Limited	Kaman Aerospace Group, Inc.	Composites	-	-	-
Mar-17	Aircraft Fasteners International, LLC	Audax Group, Inc.	Components & Subsystems	-	-	-
Mar-17	Sumitomo Precision Products Co., Ltd. (TSE:6355)	Sumitomo Corporation (TSE:8053)	Controls	377.1	0.8x	9.3x
Mar-17	TP Aerospace Solutions Aps	CataCap Management Aps	Components & Subsystems	-	-	-
Feb-17	H.R. Givon Ltd	WiPro Enterprises Limited	Components & Subsystems	-	-	-

\*Highlighted transactions indicate Meridian Capital transactions.

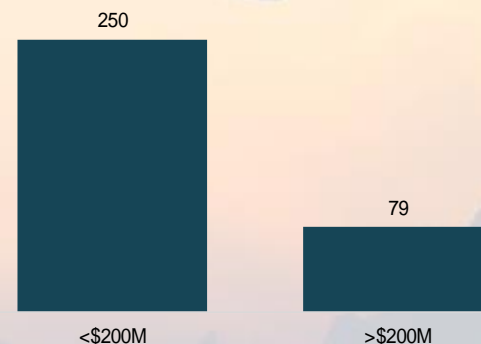
# Notable Recent Transactions

Date	Target	Buyer	Segment	EV (\$M)	EV/Revenue	EV/EBITDA
Feb-17	LMI Aerospace, Inc.	Sonaca SA	Aerostructures	429.8	1.2x	12.5x
Feb-17	Brek Manufacturing Company	Aernnova Aerospace S.A.	Components & Subsystems	-	-	-
Feb-17	Quatro Composites, LLC	AIM Aerospace, Inc.	Composites	-	-	-
Jan-17	Zodiac Aerospace (ENXTPA:ZC)	Safran SA (ENXTPA:SAF)	Components & Subsystems	9,228.6	1.6x	34.0x
Jan-17	Starport USA, Inc	Constant Aviation, LLC	MRO	-	-	-
Dec-16	Universal Aerospace Co., Inc.	Strength Capital; Patriot Capital, L.P.	Machined Parts	-	-	-
Dec-16	AD Industrie SAS	Stirling Square Capital Partners LLP	Components & Subsystems	-	-	-
Dec-16	Ascent Aviation Services Corp.	Marana Aerospace Solutions, Inc.	MRO	-	-	-
Nov-16	Gardner Group Limited	Chengdu Aerospace Superalloy Technology Co., Ltd.	Machined Parts	405.6	2.2x	-
Nov-16	Flanagan Industries Limited Partnership	EDAC Technologies Corporation	Components & Subsystems	-	-	-

**Transaction Multiple by Segment and Volume**



**Transaction Volume by EV**



Transactions completed since 2010 with an EV/EBITDA multiple reported

Source: CapitalIQ



# Select Public Companies

\$ in M

Company Name	Market Cap	EV	LTM		EV/LTM		LTM Margin EBITDA	52-Week Change
			Rev	EBITDA	Rev	EBITDA		
<b>Aerospace</b>								
Airbus SE (ENXTPA:AIR)	66,054	67,599	77,883	1,844	0.9x	36.7x	2.4%	56.0%
Bombardier Inc. (TSX:BBD.B)	4,529	13,220	15,784	404	0.8x	32.7x	2.6%	76.4%
Ducommun Incorporated (NYSE:DCO)	340	502	552	52	0.9x	9.7x	9.4%	90.3%
Embraer S.A. (BOVESPA:EMBR3)	3,975	5,582	6,484	464	0.9x	12.0x	7.2%	43.9%
Esterline Technologies Corporation (NYSE:ESL)	2,555	3,068	2,014	312	1.5x	9.8x	15.5%	47.0%
HEICO Corporation (NYSE:HEI)	6,629	7,268	1,432	353	5.1x	20.6x	24.6%	66.2%
Hexcel Corporation (NYSE:HXL)	4,781	5,557	1,954	442	2.8x	12.6x	22.6%	36.3%
Kaman Corporation (NYSE:KAMN)	1,382	1,788	1,772	161	1.0x	11.1x	9.1%	30.7%
MTU Aero Engines AG (XTRA:MTX)	7,439	8,594	5,831	745	1.5x	11.5x	12.8%	52.0%
Safran SA (ENXTPA:SAF)	39,891	38,999	19,548	4,237	2.0x	9.2x	21.7%	41.2%
Senior plc (LSE:SNR)	1,474	1,708	1,256	143	1.4x	11.9x	11.4%	73.4%
Spirit AeroSystems Holdings, Inc. (NYSE:SPR)	8,305	8,696	6,802	739	1.3x	11.8x	10.9%	74.8%
Textron Inc. (NYSE:TXT)	13,005	16,071	13,773	1,492	1.2x	10.8x	10.8%	36.9%
The Boeing Company (NYSE:BA)	140,436	140,944	90,899	10,735	1.6x	13.1x	11.8%	95.1%
TransDigm Group Incorporated (NYSE:TDG)	14,554	24,711	3,470	1,621	7.1x	15.2x	46.7%	44.8%
Triumph Group, Inc. (NYSE:TGI)	1,340	2,584	3,421	401	0.8x	6.4x	11.7%	77.1%
United Technologies Corporation (NYSE:UTX)	94,255	113,655	58,108	10,145	2.0x	11.2x	17.5%	27.8%
Zodiac Aerospace (ENXTPA:ZC)	7,914	9,466	6,047	292	1.6x	32.4x	4.8%	50.9%
<b>Median</b>	<b>\$7,034</b>	<b>\$8,645</b>	<b>\$5,939</b>	<b>\$453</b>	<b>1.4x</b>	<b>11.8x</b>	<b>11.6%</b>	<b>51.5%</b>
<b>Mean</b>	<b>\$23,270</b>	<b>\$26,112</b>	<b>\$17,613</b>	<b>\$1,921</b>	<b>1.9x</b>	<b>15.5x</b>	<b>14.1%</b>	<b>56.7%</b>
<b>Defense</b>								
BAE Systems plc (LSE:BA.)	24,481	26,696	23,831	2,464	1.1x	10.8x	10.3%	32.2%
Elbit Systems Ltd. (TASE:ESLT)	5,606	5,883	3,302	409	1.8x	14.4x	12.4%	38.0%
Kratos Defense & Security Solutions, Inc. (NasdaqGS:KTOS)	1,084	1,391	701	20	2.0x	69.2x	2.9%	148.9%
L3 Technologies, Inc. (NYSE:LLL)	14,193	17,221	10,895	1,322	1.6x	13.0x	12.1%	29.0%
Lockheed Martin Corporation (NYSE:LMT)	88,068	99,983	49,045	6,231	2.0x	16.0x	12.7%	35.0%
Northrop Grumman Corporation (NYSE:NOC)	47,019	52,717	25,194	3,802	2.1x	13.9x	15.1%	32.9%
Raytheon Company (NYSE:RTN)	51,688	54,507	24,519	3,708	2.2x	14.7x	15.1%	36.2%
Rockwell Collins, Inc. (NYSE:COL)	20,383	27,590	6,074	1,346	4.5x	20.5x	22.2%	63.5%
Thales S.A. (ENXTPA:HO)	23,674	21,293	17,887	1,913	1.2x	11.1x	10.7%	30.5%
<b>Median</b>	<b>\$23,674</b>	<b>\$26,696</b>	<b>\$17,887</b>	<b>\$1,913</b>	<b>2.0x</b>	<b>14.4x</b>	<b>12.4%</b>	<b>35.0%</b>
<b>Mean</b>	<b>\$30,688</b>	<b>\$34,142</b>	<b>\$17,939</b>	<b>\$2,357</b>	<b>2.1x</b>	<b>20.4x</b>	<b>12.6%</b>	<b>49.6%</b>

As of 8/16/2017

# Selected Private Equity Investments in Sector

Portfolio Holding(s)	Private Equity Group	Portfolio Holding(s)	Private Equity Group	Portfolio Holding(s)	Private Equity Group
	JLL Partners				
	GREENBRIAR EQUITY GROUP LLC				CATACAP
	ACP ARLINGTON CAPITAL PARTNERS				pechelINDUSTRIES
	LIBERTY HALL Capital Partners				
					WYNNCHURCH
	Jefferson Capital Partners				
	GEMINI INVESTORS				
	KIDD & COMPANY				3PIEQUITY PARTNERS
	Vance Street Capital LLC				AMERICAN INDUSTRIAL PARTNERS

# Exceptional Results Delivered



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