



Manufacturing Update Q4 2021

The Mufson Howe Hunter Manufacturing Update is designed to provide business leaders, investors, and industry professionals an update on current market trends and important developments within the manufacturing sector of the economy. This monthly report contains information on select companies in various subsectors within manufacturing emphasizing financial performance, stock performance, and recent news.

Macro-Economic Trends

	Nov-21	Dec-21	Trend
PMI	61.1	58.7	Negative
Total Unemployment	4.2	3.9	Positive
CPI Monthly Change	0.8	0.5	Positive
PPI Monthly Change	1.0	0.2	Positive
Industrial Production	102.0	101.9	Negative
Capacity Utilization	76.6	76.5	Negative
Manufacturing Production	100.5	100.2	Negative
Manufacturing Utilization	77.2	77.0	Negative

Sector Index Performance

	3-Year	1-Year	3-Month
Aerospace & Defense	7.8%	9.4%	-1.3%
Components & Materials	24.6%	13.7%	8.4%
Industrial Equipment	208.6%	44.2%	12.9%
Industrial & Technical Services	96.3%	32.8%	18.3%
NASDAQ	135.8%	21.4%	8.3%
S&P	90.1%	26.9%	10.7%

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MHH Sectors/Sub-sectors

Aerospace & Defense

- Aerospace
- Defense

Components & Materials

- Electronic Components
- Specialty Materials
- Vehicle Parts and Supplies

Industrial Equipment

- Construction Equipment
- Electrical Equipment
- Measurement, Control and Testing Devices
- Semiconductor Capital Equipment

Industrial & Technical Services

- Industrial Distribution
- Industrial Recycling
- Technical Services

Note: Please refer to Page 25 for the Universe components.

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MHH's coverage of the Manufacturing Sector spans companies in the following four sectors for each of which our index has been calculated as follows:

The MMH Aerospace & Defense Index is currently comprised of Airbus Group NV, BAE Systems plc, The Boeing Company, Embraer SA, General Dynamics Corp., Honeywell International Inc., Huntington Ingalls Industries, L3Harris Technologies, Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Technologies Corporation, Rolls Royce Holdings plc, Textron Inc., and Thales SA.

The MMH Components & Materials Index is currently comprised of 3M Company, Akzo Nobel NV, Alps Electric Ltd., Amphenol Corp., Aptiv plc, Autoliv Inc., BASF SE, Belden Inc., Bosch Ltd., Celanese Corp., Continental AG, Corning Inc., Denso Corp., Delphi Automotive plc, DowDuPont Inc., Encore Wire Corp., Evonik Industries, Ferro Corp., Johnson Controls Inc., Lear Corp., OMRON Corp., PPG Industries Inc., Solvay SA, Stanley Electric Co. Ltd., TE Connectivity Ltd., and Vishay Intertechnology.

The MMH Industrial Equipment Index is currently comprised of Ametek Inc., Applied Materials Inc., ASML Holding NV, Axcelis Technologies Inc., Brooks Automation Inc., Caterpillar Inc., Coahu Inc., Cummins Inc., Danaher Corp., Deere & Company, Eaton Corp. plc, Emerson Electric Co., Entegris Inc., FARO Technologies Inc., FormFactor Inc., Hubbell Inc., Hyundai Heavy Industries Co. Ltd, KLA-Tencor Corp., LamResearch Corp., MKS Instruments Inc., Nanometrics Inc., Navistar International Corp., Nova Measuring Instruments Ltd., Onto Innovation Inc., Oshkosh Corp., Powell Industries, Inc., Regal Beloit Corp., Rockwell Automation Inc., Schneider Electric SE, Teradyne Inc., Terex Corp., Tokyo Electron Ltd., Veeco Instruments Inc., and Xcerra Corp.

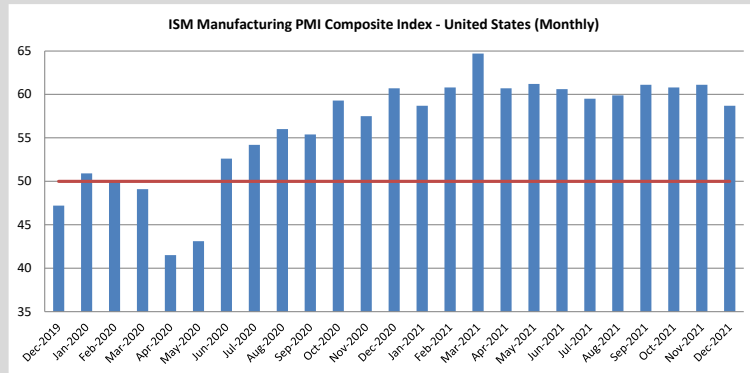
The MMH Industrial & Technical Services Index is currently comprised of AECOM Technology Corp., Aurubis AG, Balfour Beatty plc, Cardno Ltd., Clean Harbors Inc., Commercial Metals Company, Dow Holdings Co. Ltd., Fastenal Company, Fluor Corp., HD Supply Holdings Inc., Jacobs Engineering Group Inc., John Wood Group plc, KBR Inc., Lawson Products Inc., MRC Global Inc., MSC Industrial Direct Co. Inc., NV5 Global Inc., Primoris Services Corp., Sims Metal Management Ltd., Tetra Tech Inc., Transcat Inc., Veolia Environnement SA, WW Grainger Inc., and WESCO International Inc.

The companies that comprise each Index can change periodically as a result of a variety of reasons, including mergers, acquisitions, initial public offerings, and other transactions; therefore, comparisons to historical time periods and historical performance for each Index may not entirely correspond and correlate to the Index's current performance. In addition, historical performance is not a guarantee or prediction of future results.

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PMI (Purchase Manager Index)

A PMI reading above 50 percent (red line below) indicates that the manufacturing economy is generally expanding and below 50 percent means it is contracting.



Source: Institute for Supply Management

Commentary

Economic activity in the manufacturing sector grew in December, with the overall economy achieving a 19th consecutive month of growth. New Orders, Employment, Production, Backlog, Manufacturing Inventories, Prices and Exports and Imports all grew in December while Supplier Deliveries declined at a slower rate.

Unemployment Rate

Unemployment rate is traditionally defined as the percentage of the total labor force that is actively looking for gainful employment.



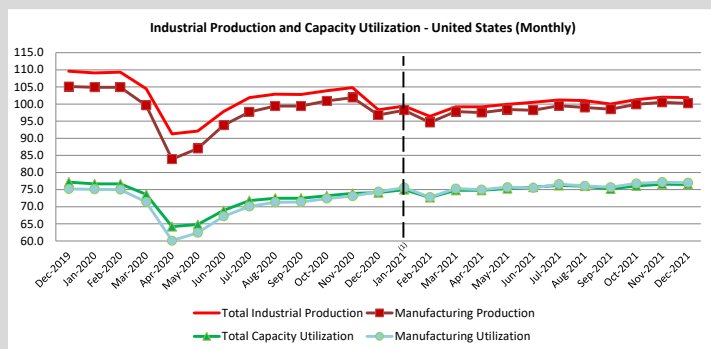
Source: United States Bureau of Labor

Commentary

In December, the unemployment rate fell by 0.3% to 3.9% and the number of unemployed persons fell by 483,000 to 6.3 million. Total nonfarm payroll employment rose by 199,000 in December, with notable gains in leisure & hospitality, professional & business services, construction, and transportation & warehousing. The labor force participation rate was unchanged at 61.9% in December.

Industrial Production and Capacity Utilization

The Production Index (in red below) measures real output and is expressed as a percentage of real output in a base year, currently 2007. The Capacity Index (in green below), which is an estimate of sustainable potential output, is also expressed as a percentage of real output in 2007.



Source: United States Federal Reserve

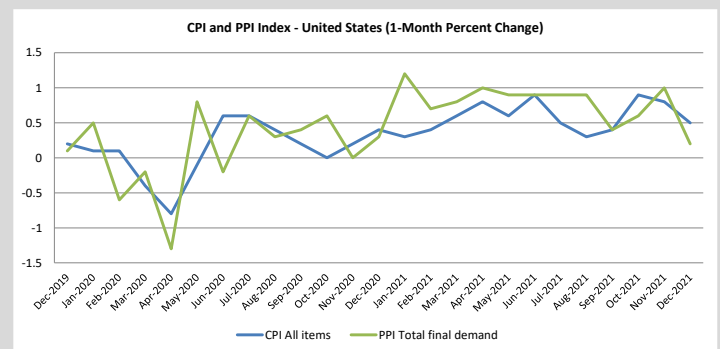
(1) Index was revised May 28, 2021 to reflect 2017 as a base year (rather than 2012) and adopt 2017 NAICS groups.

Commentary

Total industrial production fell 0.1% in December. At 101.9% of its 2017 average, the level of total industrial production was 3.7% higher than it was a year earlier. Capacity utilization for the industrial sector edged down 0.1 percentage point in December to 76.5%, 3.1 points below its long-run (1972–2020) average.

Producer Price Index (PPI) and Consumer Price Index (CPI)

The PPI measures the average change over time in prices received (price changes) by producers for domestically produced goods, services and construction. The CPI measures changes in the prices paid by urban consumers for a representative basket of goods and services.



Source: United States Bureau of Labor

Commentary

CPI for all items rose 0.5% in December, driven by increases in shelter and used cars and trucks. PPI for final demand rose 0.2% in December, driven by a 0.5% increase in prices for final demand services.

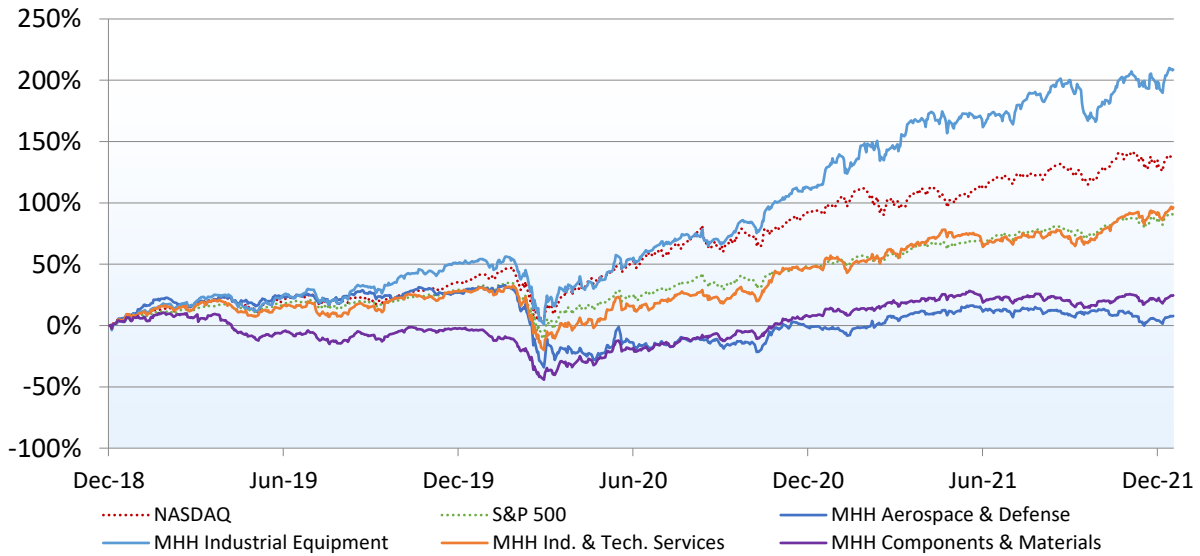
Sector Index Performance

Comparative Sector Index Performance (Last Three Years)

Last Three Years

Daily from December 31, 2018 to December 31, 2021

Price as Percent of Base (December 31, 2018 = 0%)



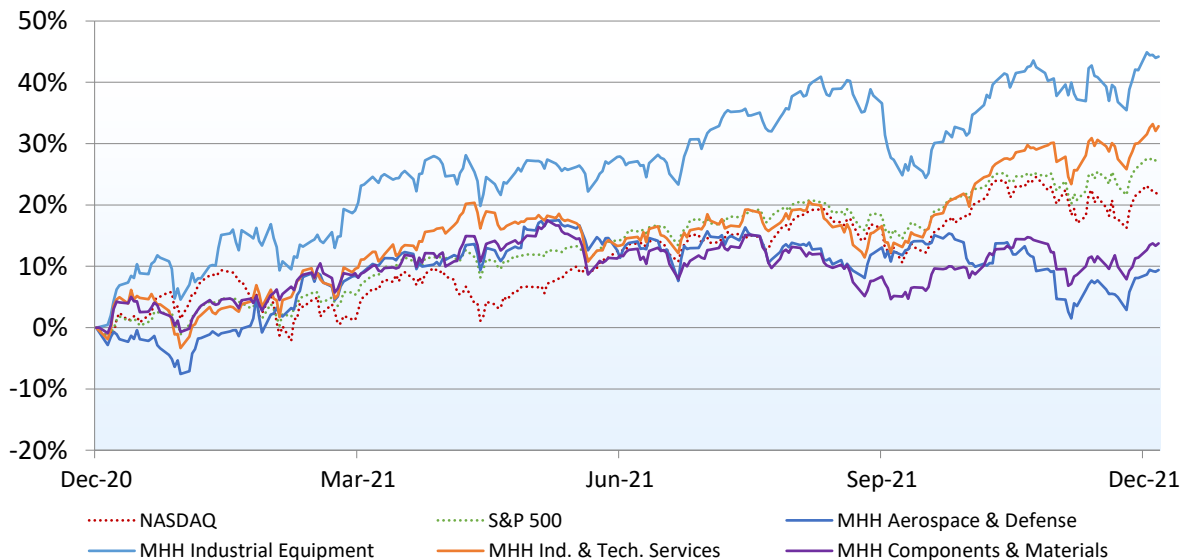
Source: CapitalIQ

Comparative Sector Index Performance (Last Twelve Months)

Last Twelve Months

Daily from December 31, 2020 to December 31, 2021

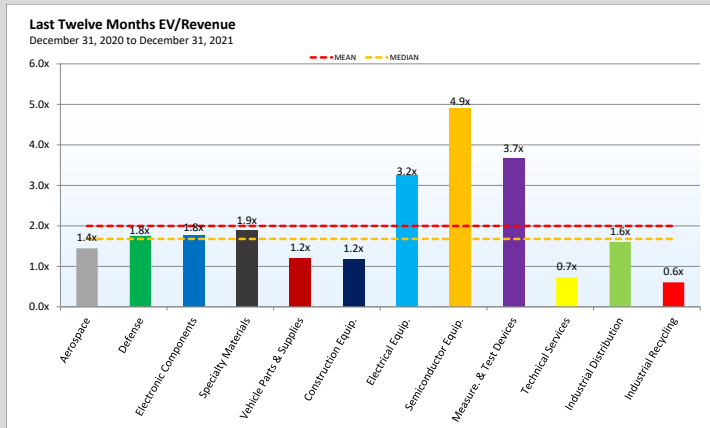
Price as Percent of Base (December 31, 2020 = 0%)



Source: CapitalIQ

Subsector Trading Multiples & Margins

Comparative Subsector LTM EV/Revenue

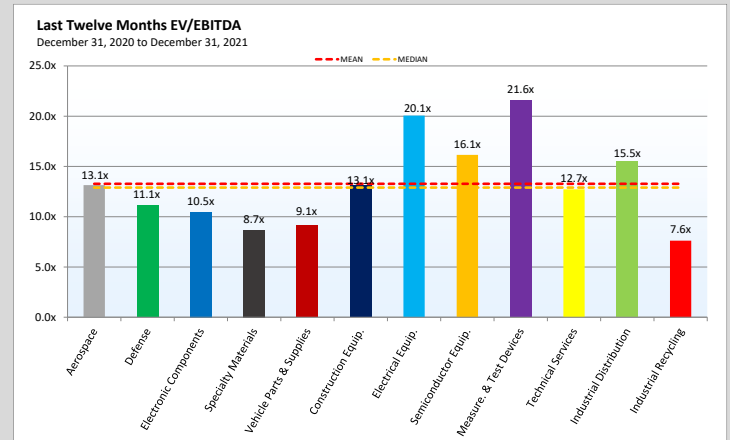


Source: CapitalIQ

Commentary

During the last twelve months, our index subsectors had a mean EV/Revenue of 2.0x and a median of 1.7x. Of the subsectors, Semiconductor Capital Equipment had the high multiple at 4.9x and Industrial Recycling had the low multiple at 0.6x.

Comparative Subsector LTM EV/EBTIDA

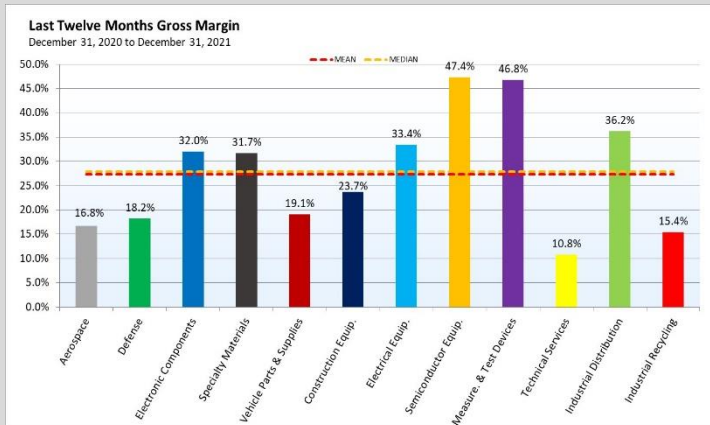


Source: CapitalIQ

Commentary

During the last twelve months, our index subsectors had a mean EV/EBITDA of 13.3x and a median of 12.9x. Of the subsectors, Measure & Test Devices had the high multiple at 21.6x and Vehicle Parts & Supplies had the low multiple at 9.1x.

Comparative Subsector LTM Gross Margin

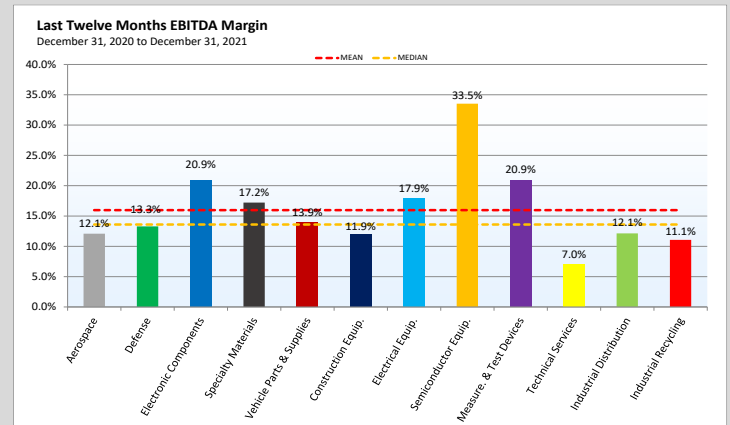


Source: CapitalIQ

Commentary

During the last twelve months, our index subsectors had a mean Gross Margin of 27.6% and a median of 27.7%. Of the subsectors, Semiconductor Capital Equipment had the high margin at 47.4% and Technical Services had the low margin at 10.8%.

Comparative Subsector LTM EBITDA Margin

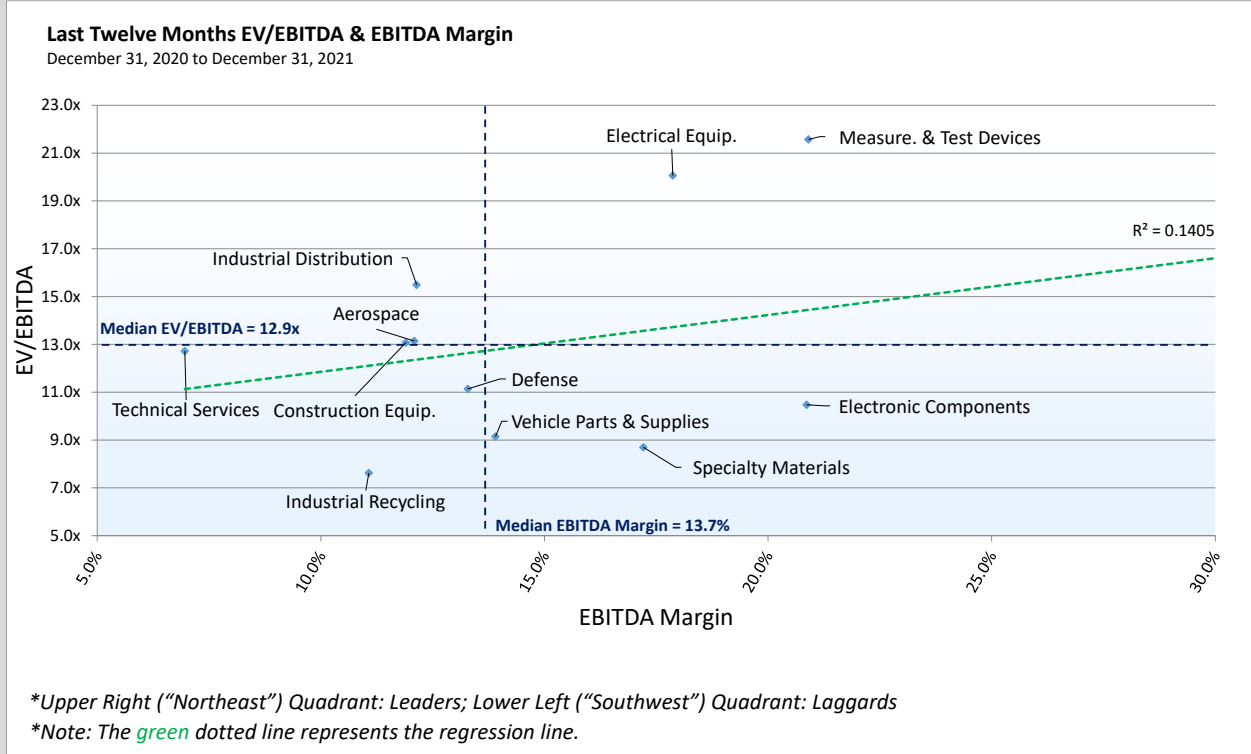


Source: CapitalIQ

Commentary

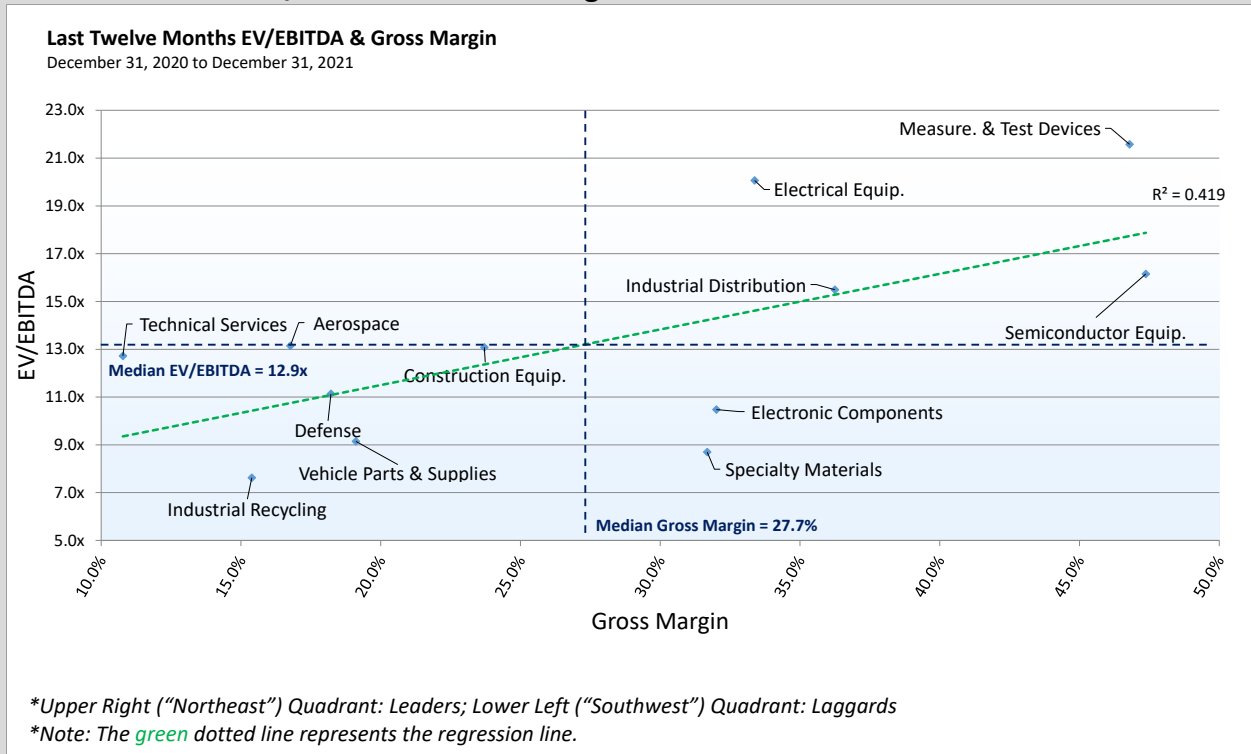
During the last twelve months, our index subsectors had a mean EBITDA Margin of 16.0% and a median of 13.6%. Of the subsectors, Semiconductor Capital Equipment had the high margin at 33.5% and Technical Services had the low margin at 7.0%.

Index Subsector LTM EV/EBITDA vs. EBITDA Margin



Source: CapitalIQ

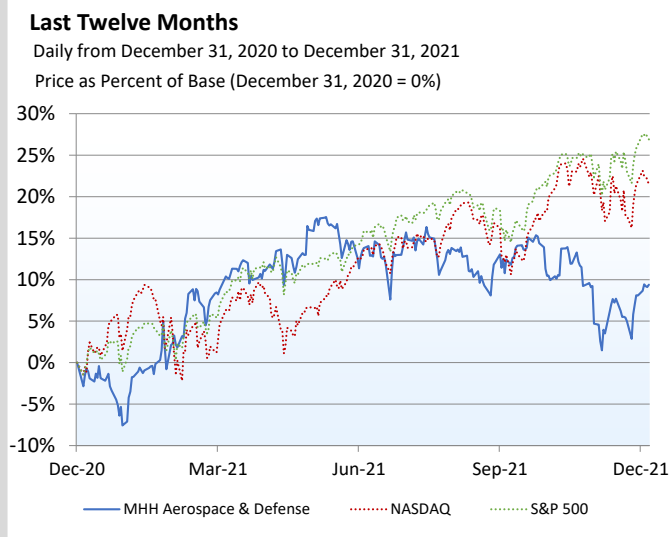
Index Subsector LTM EV/EBITDA vs. Gross Margin



Source: CapitalIQ

Comparative Index Performance

The Mufson Howe Hunter Aerospace & Defense Index^(a) decreased by 1.3% during the three months ending December 31, 2021.





Price Performance

	3-Year	LTM	3 Month
Mufson Howe Hunter Aerospace & Defense Index ^(a)	7.8%	9.4%	-1.3%
NASDAQ	135.8%	21.4%	8.3%
S&P 500	90.1%	26.9%	10.7%

(a) Market cap weighted index assuming no dividend reinvestment. Mufson Howe Hunter Aerospace & Defense Index is comprised of all companies listed on the following page.

Please see Page 15 for sector news

Highlighted M&A Transaction – Aerospace and Defense

Target	Acquirer	Value*
		\$340.0

Tempo Automation Inc. entered into an agreement to acquire Advanced Circuits, Inc. from Compass Diversified (NYSE:CODI) and others for \$340 million on October 13, 2021. Advanced Circuits, Inc., also known as 4PCB, manufactures and sells printed circuit boards (PCBs). The company offers standard and custom PCBs, 2 & 4 layer PCB specials, gerber file check, PCB design software, expedited turn times, and solder paste stencils.

M&A List continues on Page 13

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Aerospace & Defense

Selected Valuation Metrics

(\$ in USD millions, except per share data)

Company	Market & Capitalization			LTM Performance ⁽³⁾			Valuation			Margins	
	Price ⁽¹⁾	Equity Value	Enterprise Value ⁽²⁾	Revenue	EBITDA ⁽⁴⁾	EPS	Enterprise Value/Revenue	Price/EBITDA	Price/EPS	Gross Profit	EBITDA
Aerospace											
Raytheon Technologies Corporation (RTX)	\$90.19	\$135,211	\$162,152	\$64,388	\$11,476	\$2.15	2.52x	14.1x	NM	19.4%	17.8%
The Boeing Company (BA)	200.24	116,740	160,290	62,286	1,639	-2.98	2.57x	NM	NM	8.6%	2.6%
Honeywell International Inc. (HON)	204.48	140,769	151,173	34,392	7,423	6.36	4.40x	20.4x	32.2x	32.0%	21.6%
Airbus SE (ENXTPA:AIR)	125.58	98,689	96,770	63,637	8,931	5.60	1.52x	10.8x	22.4x	19.1%	14.0%
Thales S.A. (ENXTPA:HO)	91.22	19,428	22,467	20,940	2,532	4.55	1.07x	8.9x	20.0x	24.8%	12.1%
Rolls-Royce Holdings plc (LSE:RR.)	1.54	12,805	19,737	15,620	-347	0.02	1.26x	NM	NM	10.6%	NM
Textron Inc. (TXT)	68.06	15,002	16,957	12,382	1,395	2.43	1.37x	12.2x	28.0x	9.2%	11.3%
Embraer S.A. (BOVESPA:EMBR3)	3.84	2,819	4,902	4,647	209	-0.06	1.06x	23.4x	NM	14.4%	4.5%
Mean		\$67,683	\$79,306	\$34,787	\$4,157	\$2.26	1.97x	15.0x	25.7x	17.3%	12.0%
Median		59,058	59,618	27,666	2,085	2.29	1.45x	13.1x	25.2x	16.8%	12.1%
Defense											
Lockheed Martin Corporation (LMT)	\$389.13	\$105,971	\$115,469	\$67,044	\$9,010	\$17.09	1.72x	12.8x	22.8x	13.6%	13.4%
General Dynamics Corporation (GD)	212.10	58,780	68,672	38,469	5,053	8.58	1.79x	13.6x	24.7x	10.8%	13.1%
Northrop Grumman Corporation (NOC)	369.90	57,742	68,451	35,667	8,734	27.24	1.92x	7.8x	13.6x	20.4%	24.5%
L3Harris Technologies, Inc. (LHX)	209.29	41,068	47,956	17,814	3,063	7.11	2.69x	15.7x	29.4x	30.2%	17.2%
BAE Systems plc (BA.)	7.75	24,352	29,773	26,843	3,322	0.43	1.11x	9.0x	18.2x	64.6%	12.4%
Huntington Ingalls Industries, Inc. (HII)	187.20	7,499	10,463	9,604	1,106	12.21	1.09x	9.5x	15.3x	16.1%	11.5%
Mean		\$49,235	\$56,797	\$32,574	\$5,048	\$12.11	1.72x	11.4x	20.7x	25.9%	15.4%
Median		49,405	58,204	31,255	4,187	10.40	1.75x	11.1x	20.5x	18.2%	13.3%

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close January 31, 2022.

(2) Enterprise value is defined as equity value plus net debt, preferred stock and minority interests. Net Debt includes long term debt, short term debt, post-retirement benefits and unfunded pensions, if applicable, less cash and cash equivalents.

(3) As of December 31, 2021 excluding TXT (January 1, 2022), ENXTPA:AIR; BOVESPA:EMBR3 and HII (September 30, 2021) and ENXTPA:HO, LSE:RR and BA (June 30, 2021).

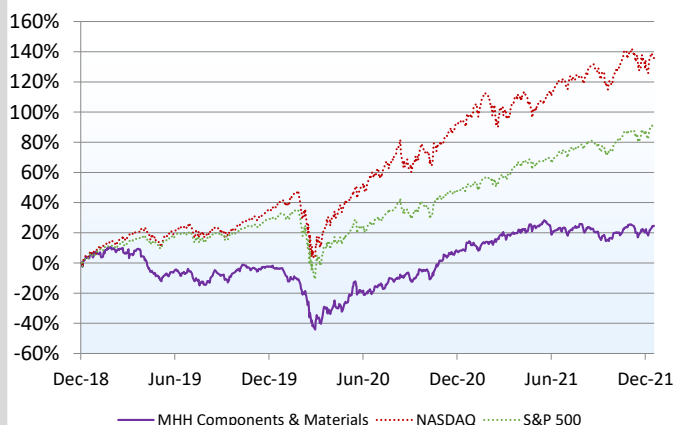
(4) Excludes non-recurring and discontinued operations.

Comparative Index Performance

The Mufson Howe Hunter Components & Materials Index^(a) increased by 8.4% during the three months ending December 31, 2021.

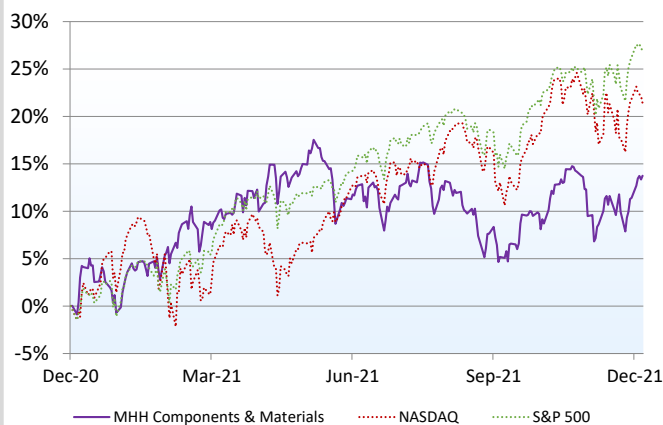
Last Three Years

Daily from December 31, 2018 to December 31, 2021
Price as Percent of Base (December 31, 2018 = 0%)



Last Twelve Months

Daily from December 31, 2020 to December 31, 2021
Price as Percent of Base (December 31, 2020 = 0%)





Price Performance

	3-Year	LTM	3 Month
Mufson Howe Hunter Components & Materials Index ^(a)	24.6%	13.7%	8.4%
NASDAQ	135.8%	21.4%	8.3%
S&P 500	90.1%	26.9%	10.7%

(a) Market cap weighted index assuming no dividend reinvestment. Mufson Howe Hunter Components & Materials Index is comprised of all companies listed on the following page.

Please see Page 17 for sector news

Highlighted M&A Transaction – Components & Materials

Target	Acquirer	Value*
		\$5,034.3

DuPont de Nemours, Inc. (NYSE:DD) entered into a definitive merger agreement to acquire Rogers Corporation (NYSE:ROG) for \$5.03 billion on November 1, 2021. Rogers Corporation designs, develops, manufactures, and sells engineered materials and components worldwide. It operates in Advanced Connectivity Solutions (ACS), Elastomeric Material Solutions (EMS), Power Electronics Solutions (PES), and Other segments.

M&A List continues on Page 16

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Components & Materials

Selected Valuation Metrics

(\$ in USD millions, except per share data)

Company	Market & Capitalization			LTM Performance ⁽³⁾			Valuation			Margins	
	Price ⁽¹⁾	Equity Value	Enterprise Value ⁽²⁾	Revenue	EBITDA ⁽⁴⁾	EPS	Enterprise Value/Revenue	Price/EBITDA	Price/EPS	Gross Profit	EBITDA
Electronic Components											
Amphenol Corp. (APH)	\$79.59	\$47,597	\$51,233	\$10,876	\$2,571	\$2.04	4.71x	19.9x	39.0x	31.3%	23.6%
TE Connectivity Ltd (TEL)	143.01	46,561	49,691	15,219	3,572	5.20	3.27x	13.9x	27.5x	32.7%	23.5%
Corning Inc. (GLW)	42.04	34,893	40,001	14,082	3,691	1.85	2.84x	10.8x	22.8x	36.6%	26.2%
Omron Corp. (TSE:6645)	72.09	14,359	12,649	6,467	928	1.92	1.96x	13.6x	37.6x	45.8%	14.4%
Belden Inc. (BDC)	55.95	2,512	3,617	2,268	358	2.83	1.59x	10.1x	19.8x	35.8%	15.8%
Vishay Intertechnology (VSH)	20.71	2,999	2,656	3,065	559	1.58	0.87x	4.7x	13.1x	26.4%	18.3%
Alps Electric Ltd (TSE:6770)	10.80	2,237	2,426	6,754	603	0.81	0.36x	4.0x	13.3x	17.4%	8.9%
Encore Wire Corp. (WIRE)	112.69	2,283	1,988	2,286	570	16.56	0.87x	3.5x	6.8x	30.2%	24.9%
Mean		\$19,180	\$20,532	\$7,627	\$1,606	\$4.10	2.06x	10.1x	22.5x	32.0%	19.4%
Median		8,679	8,133	6,610	765	1.98	1.78x	10.5x	21.3x	32.0%	20.9%
Specialty Materials											
3M Company (MMM)	\$166.02	\$94,938	\$107,799	\$35,355	\$9,581	\$7.69	3.05x	11.3x	21.6x	46.8%	27.1%
BASF SE (DE:BAS)	75.63	69,293	89,344	86,610	15,942	8.05	1.03x	5.6x	9.4x	25.1%	18.4%
Dow Inc. (DOW)	59.73	43,813	57,534	54,968	10,961	7.27	1.05x	5.2x	8.2x	20.0%	19.9%
DuPont de Nemours (DD)	76.60	39,687	49,683	22,191	5,594	1.97	2.24x	8.9x	38.9x	35.0%	25.2%
PPG Industries, Inc. (PPG)	156.20	37,082	43,533	16,802	2,372	4.42	2.59x	18.4x	35.3x	38.8%	14.1%
Akzo Nobel N.V. (ENXTAM:AKZA)	102.55	18,625	21,088	10,887	1,574	3.92	1.94x	13.4x	26.2x	41.7%	14.5%
Celanese Corp. (CE)	155.71	16,952	20,921	8,537	2,456	12.74	2.45x	8.5x	12.2x	31.9%	28.8%
Evonik Industries AG (DE:EVK)	32.25	15,027	18,101	16,317	2,488	1.72	1.11x	7.3x	18.7x	28.1%	15.3%
Solvay SA (ENXTBR:SOLB)	119.29	12,306	15,016	12,257	1,963	7.84	1.23x	7.6x	15.2x	27.0%	16.0%
Ferro Corporation (FOE)	21.80	1,804	2,052	1,120	172	0.75	1.83x	11.9x	28.9x	31.5%	15.4%
Mean		\$34,953	\$42,507	\$26,504	\$5,310	\$5.64	1.85x	9.8x	21.5x	32.6%	19.5%
Median		27,853	32,310	16,559	2,472	5.84	1.88x	8.7x	20.1x	31.7%	17.2%
Vehicle Parts and Supplies											
Johnson Controls Inc. (JCI)	\$72.67	\$51,042	\$60,011	\$24,189	\$4,232	\$2.27	2.48x	14.2x	32.1x	34.0%	17.5%
Denso Corp. (TSE:6902)	73.73	56,382	57,653	47,223	6,017	2.47	1.22x	9.6x	29.9x	0.0%	12.7%
Aptiv PLC (APTV)	136.58	36,947	38,815	15,696	2,178	2.34	2.47x	17.8x	NM	16.8%	13.9%
Continental AG (DB:CON)	95.56	19,028	24,289	46,301	6,452	11.46	0.52x	3.8x	8.3x	23.4%	13.9%
Lear Corp. (LEA)	167.32	9,975	11,891	19,627	1,693	9.49	0.61x	7.0x	17.6x	9.0%	8.6%
Autoliv, Inc. (ALV)	99.04	8,664	9,850	8,230	1,077	4.41	1.20x	9.1x	22.5x	18.4%	13.1%
Bosch Ltd. (BSE:500530)	221.36	6,529	6,111	1,547	223	4.31	3.95x	NM	NM	39.0%	14.4%
Stanley Electric Co. Ltd. (TSE:6923)	23.12	3,699	3,022	3,307	599	1.12	0.91x	5.0x	20.6x	19.9%	18.1%
Mean		\$24,033	\$26,455	\$20,765	\$2,809	\$4.73	1.67x	9.5x	21.8x	20.0%	14.0%
Median		14,502	18,090	17,661	1,935	3.39	1.21x	9.1x	21.5x	19.1%	13.9%

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close January 31, 2022.

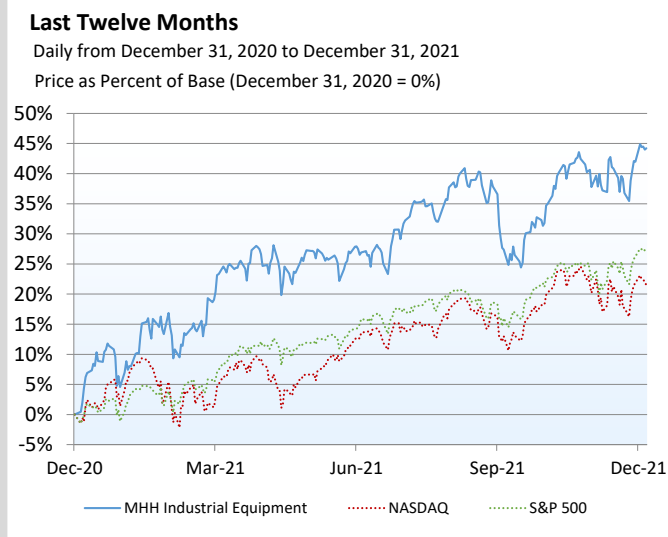
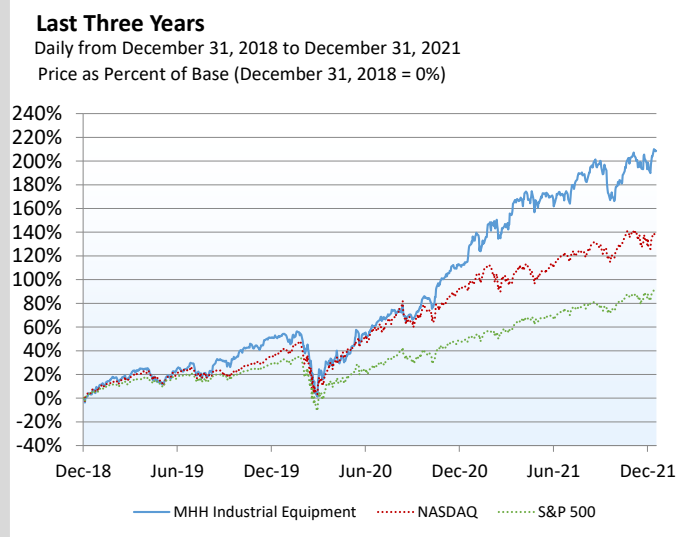
(2) Enterprise value is defined as equity value plus net debt, preferred stock and minority interests. Net Debt includes long term debt, short term debt, post-retirement benefits and unfunded pensions, if applicable, less cash and cash

(3) As of December 31, 2021 excluding TEL (December 24, 2021); BDC (October 3, 2021); VSH (October 2, 2021) and APTV, WIRE, DE:BAS, DD, ENXTAM:AKZA, DE:EVK, ENXTBR:SOLB, FOE and BSE:500530 (September 30, 2021).

(4) Excludes non-recurring and discontinued operations.

Comparative Index Performance

The Mufson Howe Hunter Industrial Equipment Index^(a) increased by 12.9% during the three months ending December 31, 2021.



Price Performance

	3-Year	LTM	3 Month
Mufson Howe Hunter Industrial Equipment Index ^(a)	208.6%	44.2%	12.9%
NASDAQ	135.8%	21.4%	8.3%
S&P 500	90.1%	26.9%	10.7%

(a) Market cap weighted index assuming no dividend reinvestment. Mufson Howe Hunter Industrial Equipment Index is comprised of all companies listed on the following page.

Please see Page 20 for sector news

Highlighted M&A Transaction – Industrial Equipment

Target	Acquirer	Value*
 CMC MATERIALS		\$6,542.0

Entegris, Inc. (NasdaqGS:ENTG) entered into an agreement to acquire CMC Materials, Inc. (NasdaqGS:CCMP) from The Vanguard Group, Inc., EARNEST Partners, LLC, Neuberger Berman Group LLC, BlackRock, Inc. (NYSE:BLK) and others for \$5.7 billion on December 15, 2021. Entegris will acquire CMC Materials in a cash and stock transaction with an equity value of \$5.8 billion enterprise value of approximately \$6.5 billion. CMC Materials, Inc., together with its subsidiaries, provides consumable materials to semiconductor manufacturers, and pipeline and adjacent industry customers

M&A List continues on Page 18

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Industrial Equipment

Selected Valuation Metrics

(\$ in USD millions, except per share data)

Company	Market & Capitalization			LTM Performance ⁽³⁾			Valuation			Margins	
	Price ⁽¹⁾	Equity Value	Enterprise Value ⁽²⁾	Revenue	EBITDA ⁽⁴⁾	EPS	Enterprise Value/Revenue	Price/EBITDA	Price/EPS	Gross Profit	EBITDA
Construction Equipment											
Deere & Company (DE)	\$376.40	\$116,005	\$157,398	\$43,956	\$9,040	\$15.10	3.58x	17.4x	24.9x	27.7%	20.6%
Caterpillar Inc. (CAT)	201.56	109,032	138,425	50,971	9,317	9.38	2.72x	14.9x	21.5x	25.9%	18.3%
Cummins Inc. (CMI)	220.88	31,593	33,897	24,021	2,859	11.56	1.41x	11.9x	19.1x	23.7%	11.9%
Korea Shipbuilding & Offshore Engineering Co., Ltd. (KOSE:A009540)	66.02	4,668	6,744	12,361	(400)	(7.81)	0.55x	NM	NM	NM	NM
Oshkosh Corp. (OSK)	113.81	7,580	7,403	7,953	566	3.84	0.93x	13.1x	29.6x	14.5%	7.1%
Terex Corp. (TEX)	41.72	2,887	3,228	3,683	346	2.21	0.88x	9.3x	18.9x	20.0%	9.4%
Mean		\$45,294	\$57,849	\$23,824	\$3,621	\$5.71	1.68x	13.3x	22.8x	22.4%	13.4%
Median		19,587	20,650	18,191	1,712	6.61	1.17x	13.1x	21.5x	23.7%	11.9%
Electrical Equipment											
Schneider Electric SE (ENXTPA:SU)	\$167.29	\$92,762	\$105,693	\$32,438	\$6,016	\$5.51	3.26x	17.6x	30.4x	41.1%	18.5%
Eaton Corporation plc (ETN)	158.43	63,150	72,009	19,628	3,375	3.54	3.67x	21.3x	NM	32.3%	17.2%
Emerson Electric Co. (EMR)	91.95	54,701	59,620	18,548	3,980	3.66	3.21x	15.0x	25.1x	41.3%	21.5%
Rockwell Automation Inc. (ROK)	289.22	33,606	37,839	7,289	1,387	5.95	5.19x	27.3x	NM	41.2%	19.0%
Ametek Inc. (AME)	136.77	31,638	34,109	5,547	1,595	3.28	6.15x	21.4x	NM	34.5%	28.8%
Hubbell Inc. (HUBB)	187.29	10,191	11,591	4,522	717	5.58	2.56x	16.2x	33.6x	27.6%	15.9%
Regal Rexnord Corporation (RRX)	158.48	10,738	11,167	3,810	542	4.10	2.93x	20.6x	38.6x	28.5%	14.2%
Powell Industries, Inc. (POWL)	29.86	351	222	471	11	0.06	0.47x	19.5x	NM	16.0%	2.4%
Mean		\$37,142	\$41,531	\$11,532	\$2,203	\$3.96	3.43x	19.9x	31.9x	32.8%	17.2%
Median		32,622	35,974	6,418	1,491	3.88	3.24x	20.1x	32.0x	33.4%	17.9%
Measurement, Control, and Testing Devices											
Danaher Corporation (DHR)	\$285.79	\$204,340	\$227,208	\$29,453	\$9,633	\$6.53	7.71x	23.6x	NM	61.0%	32.7%
Xcerra Corporation (XCRA)	49.96	38,222	44,717	29,416	4,327	1.76	1.52x	10.3x	28.3x	34.6%	14.7%
Entegris, Inc. (ENTG)	119.84	16,240	16,762	2,299	699	2.23	7.29x	24.0x	NM	46.1%	30.4%
MKS Instruments, Inc. (MКСI)	155.33	8,614	8,599	2,950	844	7.93	2.92x	10.2x	19.6x	46.8%	28.6%
Azenta, Inc. (NasdaqGS:AZTA)	84.34	6,226	6,096	514	69	(0.12)	NM	NM	NM	47.5%	13.4%
Onto Innovation Inc. (ONTO)	91.54	4,511	4,069	718	187	1.52	5.66x	21.7x	NM	53.1%	26.1%
Nova Measuring Instruments Ltd. (NVMI)	118.30	3,343	3,029	371	108	2.04	8.17x	28.0x	NM	57.0%	29.1%
FormFactor, Inc. (FORM)	42.74	3,343	3,145	770	146	0.80	4.09x	21.6x	NM	42.4%	18.9%
Axcelis Technologies, Inc. (ACLS)	62.61	2,086	1,870	579	100	1.63	3.23x	18.7x	38.4x	43.2%	17.3%
Cohu, Inc. (COHU)	32.98	1,606	1,388	898	188	1.72	1.55x	7.4x	19.2x	44.1%	20.9%
FARO Technologies, Inc. (FARO)	54.31	989	888	331	8	(0.13)	2.69x	NM	NM	54.2%	2.6%
Mean		\$26,320	\$28,888	\$6,209	\$1,483	\$2.36	4.48x	18.4x	26.4x	48.2%	21.3%
Median		4,511	4,069	770	187	1.72	3.66x	21.6x	24.0x	46.8%	20.9%
Semiconductor Capital Equipment											
ASML Holding NV (ASML)	\$665.55	\$270,528	\$266,590	\$21,166	\$7,969	\$11.59	NM	NM	NM	52.7%	37.7%
Applied Materials, Inc. (AMAT)	138.18	122,703	122,997	23,063	7,651	4.79	5.33x	16.1x	28.9x	47.4%	33.2%
Lam Research Corp. (LRCX)	589.92	82,751	82,416	16,524	5,541	22.58	4.99x	14.9x	26.1x	46.3%	33.5%
Tokyo Electron Ltd (TSE:8035)	475.05	73,963	70,314	14,913	4,335	16.18	4.71x	16.2x	29.4x	43.5%	29.1%
KLA-Tencor Corp. (KLAC)	389.27	58,669	59,396	8,166	3,512	12.27	7.27x	16.9x	31.7x	60.8%	43.0%
Teradyne Inc. (TER)	117.43	19,142	17,826	3,703	1,331	4.06	4.81x	13.4x	28.9x	59.6%	36.0%
Veeco Instruments Inc. (VECO)	27.49	1,388	1,419	569	77	0.27	2.49x	18.4x	NM	41.3%	13.5%
Mean		\$89,878	\$88,708	\$12,586	\$4,345	\$10.25	4.94x	15.5x	29.0x	50.2%	32.3%
Median		73,963	70,314	14,913	4,335	11.59	4.90x	16.1x	28.9x	47.4%	33.5%

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close January 31, 2022.

(2) Enterprise value is defined as equity value plus net debt, preferred stock and minority interests. Net Debt includes long term debt, short term debt, post-retirement benefits and unfunded pensions, if applicable, less cash and cash equivalents.

(3) As of December 31, 2021 excluding RRX (January 1, 2021); LRCX (December 26, 2021); FORM (December 25, 2021); DE and AMAT (October 31, 2021); KOSE:A009540, TEX, HUBB, POWL, NasdaqGS:AZTA, NVMI, ACLS, FARO, TSE:8035 and VECO (September 30, 2021); LRCX (September 26, 2021); COHU and ONTO (September 25, 2021) and ENXTPA:SU and XCRA (June 30, 2021).

(4) Excludes non-recurring and discontinued operations.

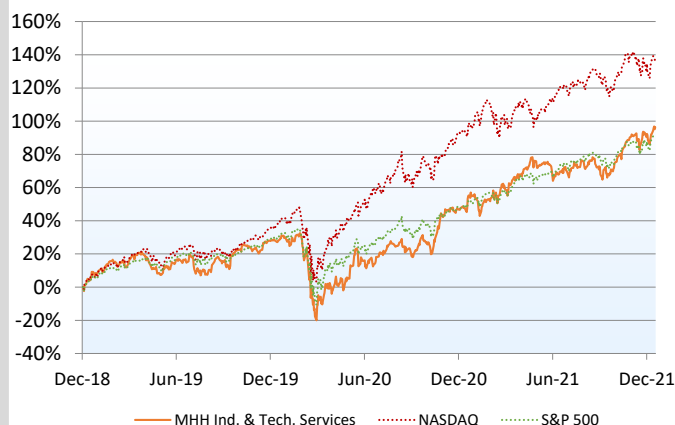
Comparative Index Performance

The Mufson Howe Hunter Industrial & Technical Services Index^(a) increased by 18.3% during the three months ending December 31, 2021.

Last Three Years

Daily from December 31, 2018 to December 31, 2021

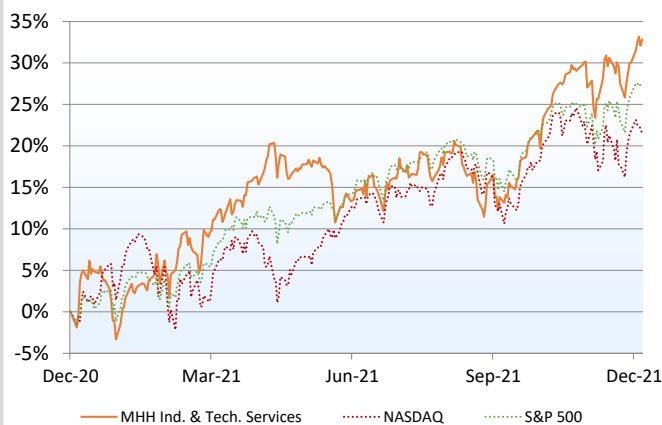
Price as Percent of Base (December 31, 2018 = 0%)



Last Twelve Months

Daily from December 31, 2020 to December 31, 2021

Price as Percent of Base (December 31, 2020 = 0%)



Price Performance

	3-Year	LTM	3 Month
Mufson Howe Hunter Industrial & Technical Services Index ^(a)	96.3%	32.8%	18.3%
NASDAQ	135.8%	21.4%	8.3%
S&P 500	90.1%	26.9%	10.7%

(a) Market cap weighted index assuming no dividend reinvestment. Mufson Howe Hunter Industrial & Technical Services Index is comprised of all companies listed on the following page.

Please see Page 23 for sector news

Highlighted M&A Transaction – Industrial & Technical Services

Target	Acquirer	Value*
		\$550.0

Commercial Metals Company signed a definitive agreement to acquire Tensar Corporation from Castle Harlan Partners V, L.P., a fund of Castle Harlan, Inc. for \$550 million on December 3, 2021. Tensar Corporation, through its subsidiaries, provides site development solutions and other technologies. It offers durable polymer grid products used in earthwork construction applications, such as the stabilization of roadways, rail-tracks, and other paved and unpaved areas.

M&A List continues on Page 22

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Industrial & Technical Services

Selected Valuation Metrics

(\$ in USD millions, except per share data)

Company	Market & Capitalization			LTM Performance ⁽³⁾			Valuation			Margins	
	Price ⁽¹⁾	Equity Value	Enterprise Value ⁽²⁾	Revenue	EBITDA ⁽⁴⁾	EPS	Enterprise Value/		Price/	Gross	
							Revenue	EBITDA	EPS	Profit	EBITDA
Industrial Distribution											
Fastenal Company (FAST)	\$56.68	\$32,617	\$33,018	\$6,011	\$1,388	\$1.31	5.49x	23.8x	NM	46.2%	23.1%
W.W. Grainger, Inc. (GWW)	495.11	25,508	27,842	13,022	1,732	16.42	2.14x	16.1x	30.2x	36.2%	13.3%
WESCO International, Inc. (WCC)	121.89	6,144	10,893	17,494	1,028	6.95	0.62x	10.6x	17.5x	20.4%	5.9%
MSC Industrial Direct Co., Inc. (MSM)	81.64	4,555	5,319	3,320	451	4.07	1.60x	11.8x	20.1x	42.0%	13.6%
MRC Global Inc. (MRC)	7.41	613	1,452	2,559	45	(0.15)	0.57x	NM	NM	15.6%	1.8%
Transcat, Inc. (TRNS)	94.91	714	761	198	24	1.17	3.85x	NM	NM	28.2%	12.1%
Lawson Products, Inc. (LAWS)	48.66	432	450	414	29	1.49	1.09x	15.5x	32.7x	52.5%	7.0%
Mean		\$10,083	\$11,391	\$6,145	\$671	\$4.47	2.19x	15.5x	25.1x	34.4%	11.0%
Median		4,555	5,319	3,320	451	1.49	1.60x	15.5x	25.1x	36.2%	12.1%
Industrial Recycling											
Veolia Environnement S.A. (ENXTPA:VIE)	\$35.76	\$24,582	\$41,096	\$32,061	\$3,518	\$0.00	1.28x	11.7x	NA	16.4%	11.0%
Clean Harbors, Inc. (CLH)	92.55	5,036	6,040	3,482	597	2.68	1.73x	10.1x	34.5x	31.7%	17.1%
Commercial Metals Company (CMC)	33.44	4,062	4,838	7,320	945	3.75	0.66x	5.1x	8.9x	17.5%	12.9%
Aurubis AG (XTRA:NDA)	102.84	4,488	4,048	18,929	1,152	13.67	0.21x	3.5x	7.5x	11.3%	6.1%
Dowa Holdings Co., Ltd. (TSE:5714)	42.92	2,554	3,752	6,803	760	6.37	0.55x	4.9x	6.7x	13.6%	11.2%
Sims Limited (ASX:SGM)	10.01	1,936	2,150	4,444	173	0.64	0.48x	12.4x	15.8x	14.4%	3.9%
Mean		\$7,110	\$10,321	\$12,173	\$1,191	\$4.52	0.82x	8.0x	14.7x	17.5%	10.4%
Median		4,275	4,443	7,061	852	3.21	0.61x	7.6x	8.9x	15.4%	11.1%
Technical Services											
AECOM (ACM)	\$69.13	\$9,767	\$11,703	\$13,341	\$814	\$1.74	0.88x	14.4x	39.7x	6.0%	6.1%
Tetra Tech, Inc. (TTEK)	139.19	7,516	7,813	2,626	321	3.25	2.97x	24.30	NM	19.9%	12.2%
KBR, Inc. (KBR)	43.40	6,088	7,396	6,306	493	0.42	1.17x	15.0x	NM	11.6%	7.8%
John Wood Group PLC (LSE:WG.)	2.98	2,021	3,751	6,630	333	0.11	0.57x	11.3x	26.6x	9.9%	5.0%
Fluor Corporation (FLR)	21.04	2,975	2,204	14,057	193	(0.47)	0.16x	11.4x	NM	2.6%	1.4%
Primoris Services Corporation (PRIM)	25.72	1,384	2,045	3,511	294	2.16	0.58x	7.0x	11.9x	11.9%	8.4%
Balfour Beatty plc (LSE:BBY)	3.38	2,146	1,951	10,230	139	0.13	0.19x	14.0x	25.4x	3.9%	1.4%
NV5 Global, Inc. (NVEE)	104.59	1,611	1,703	679	102	2.17	2.51x	16.8x	NM	50.3%	15.0%
Cardno Limited (ASX:CDD)	1.22	48	101	671	36	0.44	0.15x	2.8x	2.7x	8.9%	5.4%
Jura Energy Corporation (JEC)	0.10	7	20	20	14	0.04	0.98x	1.4x	2.3x	45.9%	69.9%
Mean		\$3,356	\$3,869	\$5,807	\$274	\$1.00	1.02x	11.8x	18.1x	17.1%	13.3%
Median		2,083	2,125	4,908	243	0.43	0.73x	12.7x	18.6x	10.8%	7.0%

NA = Not Available; NM = Not Meaningful; LTM = Latest Twelve Months

‡ = excluded from Mean and Median calculations

Source: CapitalQ

(1) As of close January 31, 2022.

(2) Enterprise value is defined as equity value plus net debt, preferred stock and minority interests. Net Debt includes long term debt, short term debt, post-retirement benefits and unfunded pensions, if applicable, less cash and cash equivalents.

(3) As of September 30, 2021 excluding TTEK (January 2, 2021); FAST and GWW (December 31, 2021); TRNS (December 25, 2021); CMC (November 30, 2021); MSM (November 27, 2021); NVEE (October 2, 2021); LSE:BBY (July 2, 2021) and ASX:CDD, ASX:SGM and LSE:WG. (June 30, 2021).

(4) Excludes non-recurring and discontinued operations.

Selected Highlights

Selected M&A Transactions – Aerospace & Defense

Announced	Target	Target Description	Acquirer	Value*
Dec 21	Zanite Acquisition Corp. (NasdaqCM:ZNTE)	The company does not have significant operations. It intends to effect a merger, capital stock exchange, or similar business combination in the aviation, aerospace & defense, urban mobility, or emerging technology industries.	Eve Urban Air Mobility, LLC	\$2,233.0
Dec 13	US Digital Designs, Inc.	Designs and develops station alerting and semiconductor robots for the public safety industry.	Honeywell International Inc. (NasdaqGS:HON)	ND
Dec 10	AirMap, Inc.	Provides automation software solutions to connect airspace authorities, enterprise operators, and industry developers for scaling drone operations in low-altitude airspaces.	DroneUp, LLC	ND
Dec 03	Lufthansa Technik Brussels/ Lufthansa Technik Maintenance International GmbH	Represents the combined operations of an airport line maintenance and repair services company and Lufthansa's Brussels operation.	Sabena Aerospace SA	ND
Nov 17	Dutch Thermoplastic Components B.V.	Provides compression molding, CCNC machining, ultrasonic inspection, CMM inspection, and catia design, as well as aircraft structures, aircraft interiors, and anti-ballistics.	Collins Aerospace	ND
Nov 16	RUAG S&T	Simulation and training business of RUAG International Holding AG in France.	Thales S.A. (ENXTPA:HO)	ND
Nov 11	Bohemia Interactive Simulations, Inc.	Develops training solutions for defense and civilian organizations.	BAE Systems plc (LSE:BA.)	ND
Oct 14	ACE Convergence Acquisition Corp. (NasdaqCM:ACEV)	Focuses on effecting mergers, amalgamations, share exchanges, or other similar business combinations.	Tempo Automation, Inc.	\$653.2
Oct 14	Advanced Circuits, Inc.	Manufactures and sells printed circuit boards.	Tempo Automation, Inc.	\$340.0
Oct 12	Lufthansa Technik Shannon Limited	Engages in the overhauling of short- and medium-range aircraft.	Atlantic Aviation Group	ND

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Selected News – Aerospace & Defense

Airbus SE (ENXTPA:AIR) reported third quarter net income of \$468.2 million for fiscal year 2021 as compared to (\$900.7) million for the prior year period. Earnings per share were \$0.59 versus (\$1.15) for the prior year period. Revenues for the quarter decreased to \$12,190.5 million from \$13,167.0 million for the same period in fiscal year 2020.

BAE Systems plc (LSE:BA.) announced that **Kelly A. Ayotte** has been appointed as the **Chair of the Board of Directors**.

Embraer S.A. (NYSE:ERJ) reported third quarter net income of (\$43.2) million for fiscal year 2021 as compared to (\$115.5) million for the prior year period. Earnings per share were (\$0.06) versus (\$0.16) for the prior year period. Revenues for the quarter increased to \$924.0 million from \$728.1 million for the same period in fiscal year 2020.

Huntington Ingalls Industries, Inc. (NYSE:HII) reported third quarter net income of \$147.0 million for fiscal year 2021 as compared to \$222.0 million for the prior year period. Earnings per share were \$3.65 versus \$5.45 for the prior year period. Revenues for the quarter increased to \$2,338.0 million from \$2,314.0 million for the same period in fiscal year 2020.

Lockheed Martin Corporation (NYSE:LMT) announced that **John M. Donovan** has been appointed to the **Board of Directors**.

Rolls-Royce Holdings plc (LSE:RR.) announced that **Sarah Armstrong** has been appointed as **Chief People Officer**.

Rolls-Royce Holdings plc (LSE:RR.) announced that **Grazia Vittadini** has been appointed as **Chief Technology Officer**.

Vertical Aerospace Ltd. (NYSE:EVTL) announced that **Kathy Cassidy** and **Gur Kimchi** have been appointed as **Non-Executive Directors** of the **Board of Directors**.

Vertical Aerospace Ltd. (NYSE:EVTL) announced that **Harry Holt** has been appointed as **Chief Operating Officer**.

Vertical Aerospace Ltd. (NYSE:EVTL) announced that **Jif Paines** has been appointed as **Chief Test Pilot**.

Note: All per share results are reported on a fully-diluted basis.

Selected Highlights

Selected M&A Transactions – Components & Materials

Announced	Target	Target Description	Acquirer	Value*
Dec 28	Attapulgate Business Assets of BASF SE	Comprises attapulgate mining and production business in the U.S.	BASF SE (XTRA:BAS)	\$60.0
Dec 15	Substantially all assets and certain liabilities of Barry Industries	Comprises semiconductors packaging and resistive components.	Vishay Intertechnology, Inc. (NYSE:VSH)	\$21.0
Dec 14	Food Safety Business of 3M Company	Comprises the business of food safety products and manufacturing related to indicator testing and pathogen detection.	Neogen Corporation (NasdaqGS:NEOG)	\$1,000.0
Dec 13	Creganna Medical Pte. Limited	Processes and assembles catheters.	Quasar Engineering Limited	ND
Dec 07	Halo Technology Group	Provides optical connectivity solutions for enterprise, telecom, and government institutions.	Amphenol Corporation (NYSE:APH)	\$715.0
Dec 01	Heathland B.V.	Provides collection, recycling, and distribution of post-production plastic scraps including PMMA, PC, PA, ABS, and other thermoplastics.	Trineso PLC (NYSE:TSE)	ND
Nov 18	Kaolin Minerals Business of BASF SE	Comprises a production hub with sites and related mines, reserves, and mills across Georgia.	KaMin LLC	ND
Nov 11	Printing Solutions Business of Lodi Vecchio, Italy of Trelleborg's	Comprises printing manufacturing business facility in Italy.	Continental Aktiengesellschaft (XTRA:CON)	ND
Nov 02	Rogers Corporation (NYSE:ROG)	Produces engineered materials and components, including Advanced Connectivity Solutions, Elastometric Material Solutions, and Power Electronics Solutions, worldwide.	DuPont de Nemours, Inc. (NYSE:DD)	5,034.3
Oct 28	Botanica GmbH	Produces and sells organic plant extracts, custom-tailored extracts, and liquid concentrates for use in cosmetic formulas.	Evonik Nutrition & Care GmbH	ND
Oct 28	Interior Comfort Systems business of Kongsberg Automotive	Develops and manufactures seat climate and comfort systems for car manufacturers.	Lear Corporation (NYSE:LEA)	\$198.6
Oct 28	Celero Communications (Israel) Ltd.	Develops Wi-Fi chipsets and cloud technologies.	Renesas Electronics Corporation (TSE:6723)	\$315.0

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Selected Highlights

Selected M&A Transactions – Components & Materials (cont'd)

Announced	Target	Target Description	Acquirer	Value*
Oct 27	Precision Microchemicals Business of BASF	Develops, manufactures, and markets high purity materials, including cleaning chemistries and chemical mechanical planarization slurries.	Entegris, Inc. (NasdaqGS:ENTG)	\$90.0
Oct 11	Sunshield Chemicals Limited (BSE:530845)	Manufactures and sells specialty chemicals in India and internationally.	Indus Petrochem Limited	\$29.1
Oct 08	Silicone Engineering Ltd	Develops and manufactures silicone rubber products.	Rogers Corporation (NYSE:ROG)	ND
Oct 05	Neura, Inc.	Develops software development kits and artificial intelligence tools to improve performance of mobile applications and the Internet of Things.	Otonomo Technologies Ltd. (NasdaqGM:OTMO)	\$45.8
Oct 01	Sofies SA	Provides professional services based on industrial ecology and circular economy.	Dupont Sustainable Solutions	ND

**ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.*

Selected News – Components & Materials

Belden Inc. (NYSE:BDC) reported third quarter net income of \$41.3 million for fiscal year 2021 as compared to \$17.0 million for the prior year period. Earnings per share were \$0.91 versus \$0.38 for the prior year period. Revenues for the quarter increased to \$630.8 million from \$475.8 million for the same period in fiscal year 2020.

Bosch Limited (BSE:500530) reported second quarter net income of \$50.2 million for fiscal year 2022 as compared to (\$8.7) million for the prior year period. Earnings per share were \$1.70 versus (\$0.30) for the prior year period. Revenues for the quarter increased to \$393.4 million from \$337.2 million for the same period in fiscal year 2021.

Continental Aktiengesellschaft (DB:CON) reported third quarter net income of \$358.3 million for fiscal year 2021 as compared to (\$844.6) million for the prior year period. Earnings per share were \$1.80 versus (\$4.23) for the prior year period. Revenues for the quarter decreased to \$9,319.1 million from \$10,191.5 million for the same period in fiscal year 2020.

Continental Aktiengesellschaft (DB:CON) announced that **Katja Duerrfeld** has been appointed as **CFO**.

Corning Incorporated (NYSE:GLW) announced that **Edward Schlesinger** has been appointed as **Executive VP and CFO**.

DuPont de Nemours, Inc. (NYSE:DD) reported third quarter net income of \$391.0 million for fiscal year 2021 as compared to (\$79.0) million for the prior year period. Earnings per share were \$0.74 versus (\$0.11) for the prior year period. Revenues for the quarter increased to \$4,271.0 million from \$3,629.0 million for the same period in fiscal year 2020.

Evonik Industries AG (DE:EVK) reported third quarter net income of \$272.4 million for fiscal year 2021 as compared to \$175.0 million for the prior year period. Earnings per share were \$0.58 versus \$0.38 for the prior year period. Revenues for the quarter increased to \$4,486.6 million from \$3,425.3 million for the same period in fiscal year 2020.

Ferro Corporation (NYSE:FOE) reported third quarter net income of \$10.4 million for fiscal year 2021 as compared to \$14.5 million for the prior year period. Earnings per share were \$0.12 versus \$0.17 for the prior year period. Revenues for the quarter increased to \$277.2 million from \$241.9 million for the same period in fiscal year 2020.

Johnson Controls International plc (NYSE:JCI) announced that **Marion Sullivan** has been appointed as **Chief Human Resources Officer**.

Lear Corporation (NYSE:LEA) reported third quarter net income of (\$26.5) million for fiscal year 2021 as compared to \$174.4 million for the prior year period. Earnings per share were (\$0.44) versus \$2.89 for the prior year period. Revenues for the quarter decreased to \$4,268.2 million from \$4,900.1 million for the same period in fiscal year 2020.

PPG Industries, Inc. (NYSE:PPG) announced that **Irene Tasi** has been appointed as **Chief Growth Officer**.

Vishay Intertechnology, Inc. (NYSE:VSH) reported third quarter net income of \$96.8 million for fiscal year 2021 as compared to \$33.5 million for the prior year period. Earnings per share were \$0.67 versus \$0.23 for the prior year period. Revenues for the quarter increased to \$813.7 million from \$640.2 million for the same period in fiscal year 2020.

Vishay Intertechnology, Inc. (NYSE:VSH) announced that **Dr. Renee R. Booth** and **Dr. Michiko Kurahashi** have been appointed as **Independent Directors**.

Note: All per share results are reported on a fully-diluted basis.

Selected Highlights

Selected M&A Transactions – Industrial Equipment

Announced	Target	Target Description	Acquirer	Value*
Dec 15	AgriSync, Inc.	Develops a cloud-based software solution for mobile collaboration and customer support in agriculture.	Deere & Company (NYSE:DE)	ND
Dec 15	Mita-Teknik A/S	Develops and manufactures control systems for wind turbines.	Emerson Electric Co. (NYSE:EMR)	ND
Dec 15	CMC Materials, Inc. (NasdaqGS:CCMP)	Provides consumable materials to semiconductor manufacturers, and pipeline and adjacent industry customers globally.	Entegris, Inc. (NasdaqGS:ENTG)	\$6,542.0
Dec 14	Kreisel Electric GmbH & Co KG	Manufactures and offers batteries and related solutions.	Deere & Company (NYSE:DE)	ND
Dec 08	Medigate Corporation	Designs and develops a medical device security platform to orchestrate and integrate Health Delivery Organization security throughout its environment.	Claroty Ltd.	ND
Dec 01	AlphaSense, Inc.	Develops search engine solutions for information discovery.	AMETEK, Inc. (NYSE:AME)	ND
Dec 01	Seffner Rock & Gravel	Distributes natural stone, bulk aggregates, mulch, soil and other landscape supplies in Florida.	SiteOne Landscape Supply, Inc. (NYSE:SITE)	ND
Nov 30	Sion Power Corporation	Develops, manufactures, and sells rechargeable batteries used in electric vehicles, unmanned aerial vehicles, and stationary power markets.	Cummins Inc. (NYSE:CMI)	ND
Nov 16	Ancosys GmbH	Manufactures automated analytical systems and provides chemical analysis and metrology solutions for semiconductor manufacturing.	Nova Ltd. (NasdaqGS:NVMI)	ND
Nov 16	Hyundai Heavy Industries (China) Investment Co., Ltd.	Manufactures and sells ships, offshore structures, plants, engines, and other products in China.	Hyundai Construction Equipment Co., Ltd. (KOSE:A267270)	\$309.3
Nov 15	Semco Distributing, Inc.	Engages in quarrying, fabricating, and selling natural products, including landscaping stones, outdoor living products, building stones, brentwood stones, and custom cut stones.	SiteOne Landscape Supply, Inc. (NYSE:SITE)	ND

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Selected Highlights

Selected M&A Transactions – Industrial Equipment (cont'd)

Announced	Target	Target Description	Acquirer	Value*
Nov 02	Arrowhead Systems, LLC.	Manufactures material handling equipment and packaging lines.	Regal Rexnord Corporation (NYSE:RRX)	\$297.0
Nov 01	Avata, Inc.	Provides management consulting for supply chain from strategy, metrics, and process re-engineering to transformation services.	Kalypso LP	ND
Oct 27	Agentis, Inc.	Develops software as a service solutions for energy providers.	Uplight, Inc.	ND
Oct 26	Commercial and Industrial Lighting business of Hubbell Incorporated	Manufactures indoor and outdoor lighting products in the United States.	GE Current, a Daintree company	\$350.0
Oct 19	BG Medical Applications GmbH/SwissOptic AG/SwissOptic (Wuhan) Co., Ltd.	Supplies high-precision and custom optical components for the medical technology sector.	Jenoptik AG (XTRA:JEN)	\$340.4
Oct 11	Aspen Technology, Inc. (NasdaqGS:AZPN)	Provides asset optimization software that optimizes asset design, operations, and maintenance.	Emerson Electric Co. (NYSE:EMR)	\$11,011.7

**ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.*

Selected News – Industrial Equipment

AMETEK, Inc. (NYSE:AME) announced that **Emanuela Speranza** has been appointed as **Chief Commercial Officer**.

Applied Materials, Inc. (NasdaqGS:AMAT) reported net income of \$5,888.0 million for fiscal year 2021 as compared to \$3,619.0 million for the prior year. Earnings per share were \$6.40 versus \$3.92 for the prior year. Revenues for the year increased to \$23,063.0 million from \$17,202.0 million for fiscal year 2020.

Axcelis Technologies, Inc. (NasdaqGS:ACLS) reported third quarter net income of \$27.5 million for fiscal year 2021 as compared to \$10.8 million for the prior year period. Earnings per share were \$0.81 versus \$0.32 for the prior year period. Revenues for the quarter increased to \$176.7 million from \$110.4 million for the same period in fiscal year 2020.

Azenta, Inc. (NasdaqGS:AZTA) announced that **Frank Casal** has been appointed to the **Board of Directors**.

Cohu, Inc. (NasdaqGS:COHU) reported third quarter net income of \$23.7 million for fiscal year 2021 as compared to (\$6.6) million for the prior year period. Earnings per share were \$0.48 versus (\$0.16) for the prior year period. Revenues for the quarter increased to \$225.1 million from \$150.6 million for the same period in fiscal year 2020.

Deere & Company (NYSE:DE) reported net income of \$5,963.0 million for fiscal year 2021 as compared to \$2,751.0 million for the prior year. Earnings per share were \$18.99 versus \$8.69 for the prior year. Revenues for the year increased to \$43,956.0 million from \$35,514.0 million for fiscal year 2020.

Deere & Company (NYSE:DE) announced that **Leanne G. Caret** has been appointed to the **Board of Directors**.

Eaton Corporation plc (NYSE:ETN) announced that **Harold V. Jones** has been appointed as **Chief Sustainability Officer**.

FARO Technologies, Inc. (NasdaqGS:FARO) reported third quarter net income of (\$3.9) million for fiscal year 2021 as compared to (\$3.0) million for the prior year period. Earnings per share were (\$0.21) versus (\$0.17) for the prior year period. Revenues for the quarter increased to \$79.2 million from \$70.7 million for the same period in fiscal year 2020.

Korea Shipbuilding & Offshore Engineering Co., Ltd. (KOSE:A009540) reported third quarter net income of \$147.6 million for fiscal year 2021 as compared to (\$73.5) million for the prior year period. Earnings per share were \$2.09 versus (\$1.04) for the prior year period. Revenues for the quarter increased to \$3,010.3 million from \$2,971.6 million for the same period in fiscal year 2020.

Lam Research Corporation (NasdaqGS:LRCX) announced that **Jyoti Mehra** has been appointed to the **Board of Directors**.

Nova Ltd. (NasdaqGS:NVMI) reported third quarter net income of \$30.3 million for fiscal year 2021 as compared to \$13.9 million for the prior year period. Earnings per share were \$1.02 versus \$0.48 for the prior year period. Revenues for the quarter increased to \$112.7 million from \$69.5 million for the same period in fiscal year 2020.

Powell Industries, Inc. (NasdaqGS:POWL) reported net income of \$0.6 million for fiscal year 2021 as compared to \$16.7 million for the prior year. Earnings per share were \$0.05 versus \$1.42 for the prior year. Revenues for the year decreased to \$470.6 million from \$518.5 million for fiscal year 2020.

PTC Inc. (NasdaqGS:PTC) announced that **Michal Katz** has been appointed to the **Board of Directors**.

Selected News – Industrial Equipment (cont'd)

Onto Innovation Inc. (NYSE:ONTO) reported third quarter net income of \$36.4 million for fiscal year 2021 as compared to \$8.1 million for the prior year period. Earnings per share were \$0.73 versus \$0.16 for the prior year period. Revenues for the quarter increased to \$200.6 million from \$126.5 million for the same period in fiscal year 2020.

Onto Innovation Inc. (NYSE:ONTO) announced that **James Harlow** has been appointed as **COO**.

Schneider Electric S.E. (ENXTPA:SU) reported second quarter net income of \$922.5 million for fiscal year 2021 as compared to \$436.1 million for the prior year period. Earnings per share were \$1.65 versus \$0.78 for the prior year period. Revenues for the quarter increased to \$8,165.8 million from \$6,513.1 million for the same period in fiscal year 2020.

Schneider Electric S.E. (ENXTPA:SU) announced that **Philippe Rambach** has been appointed as **Chief AI Officer**.

Terex Corporation (NYSE:TEX) reported third quarter net income of \$48.1 million for fiscal year 2021 as compared to \$5.8 million for the prior year period. Earnings per share were \$0.68 versus \$0.08 for the prior year period. Revenues for the quarter increased to \$993.8 million from \$765.6 million for the same period in fiscal year 2020.

Terex Corporation (NYSE:TEX) announced that **Julie A. Beck** has been appointed as **CFO** effective **January 1, 2022**.

Tokyo Electron Limited (TSE:8035) reported second quarter net income of \$895.2 million for fiscal year 2022 as compared to \$526.8 million for the prior year period. Earnings per share were \$5.72 versus \$3.37 for the prior year period. Revenues for the quarter increased to \$4,307.4 million from \$3,350.1 million for the same period in fiscal year 2021.

Veeco Instruments Inc. (NasdaqGS:VECO) reported third quarter net income of \$9.0 million for fiscal year 2021 as compared to \$0.6 million for the prior year period. Earnings per share were \$0.17 versus \$0.01 for the prior year period. Revenues for the quarter increased to \$150.2 million from \$112.1 million for the same period in fiscal year 2020.

Note: All per share results are reported on a fully-diluted basis.

Selected Highlights

Selected M&A Transactions – Industrial & Technical Services

Announced	Target	Target Description	Acquirer	Value*
Dec 30	Sims Municipal Recycling Of New York LLC	Engages in the recycling, processing, and marketing of plastic, glass, metal, and paper.	Closed Loop Partners, LLC	\$45.4
Dec 23	Necity Telecom S.A.	Develops and operates the underground fiber optics and ducts telecommunications network.	Meridiam Infrastructure Finance S.a.r.l.	ND
Dec 22	Mostoles District Heating, S.L.	Operates a centralized heating network and provides hot water supply to homes.	Vauban Infrastructure Partners	\$112.9
Dec 16	Assets of Atlantic Recycling Group, LLC	Provides recycling services in the U.S.	Sims Limited (ASX:SGM)	\$37.0
Dec 14	Spring Valley Acquisition Corp. (NasdaqCM:SV)	Intends to effect a merger, share exchange, or related business combination with businesses in the alternative energy industry.	NuScale Power, LLC	ND
Dec 07	Tensar Corporation	Provides site development solutions and other technologies.	Commercial Metals Company (NYSE:CMC)	\$550.0
Dec 07	Assets of Recyclers Australia Pty Ltd	Offers ferrous and non-ferrous metal scrap recycling services.	Sims Limited (ASX:SGM)	\$12.8
Nov 30	Oil & Gas Maintenance and Turnaround Services Business of AECOM (NYSE:ACM)	Provides professional infrastructure consulting services for governments, businesses, and organizations.	Graham Construction & Engineering Inc.	ND
Nov 01	BlackLynx, Inc.	Provides virtual and heterogeneous compute solutions that accelerate and streamline data analytics ecosystems.	Jacobs Engineering Group Inc. (NYSE:J)	ND
Oct 29	U.S. Track Solutions Operation	Provides track inspection, ballast cleaning and subgrade management, and equipment and technology for the rail sector.	Rhomberg Sersa Rail Holding GmbH	\$7.3
Oct 25	Veolia Recycling Solutions Sweden AB	Supplies recycled paper and board, plastics, chemicals, and metals.	Remondis International GmbH	ND
Oct 05	Pirkle Inc	Processes ferrous and non-ferrous metals.	SA Recycling LLC	ND

*ND – Not disclosed. Transaction values reported on the basis of enterprise value in USD millions.

Selected News – Industrial & Technical Services

AECOM (NYSE:ACM) reported net income of \$173.2 million for fiscal year 2021 as compared to (\$186.4) million for the prior year. Earnings per share were \$1.16 versus (\$1.15) for the prior year. Revenues for the year increased to \$13,340.9 million from \$13,240.0 million for fiscal year 2020.

Aurubis AG (XTRA:NDA) reported net income of \$710.2 million for fiscal year 2021 as compared to \$311.4 million for the prior year. Earnings per share were \$16.26 versus \$6.98 for the prior year. Revenues for the year increased to \$18,928.8 million from \$14,620.8 million for fiscal year 2020.

Clean Harbors, Inc. (NYSE:CLH) reported third quarter net income of \$65.4 million for fiscal year 2021 as compared to \$54.9 million for the prior year period. Earnings per share were \$1.20 versus \$0.99 for the prior year period. Revenues for the quarter increased to \$951.5 million from \$779.3 million for the same period in fiscal year 2020.

Dowa Holdings Co., Ltd. (TSE:5714) reported second quarter net income of \$113.4 million for fiscal year 2022 as compared to \$13.5 million for the prior year period. Earnings per share were \$1.91 versus \$0.23 for the prior year period. Revenues for the quarter increased to \$1,930.6 million from \$1,299.6 million for the same period in fiscal year 2021.

Fluor Corporation (NYSE:FLR) reported third quarter net income of \$40.5 million for fiscal year 2021 as compared to \$19.3 million for the prior year period. Earnings per share were \$0.22 versus \$0.13 for the prior year period. Revenues for the quarter decreased to \$3,103.1 million from \$3,456.9 million for the same period in fiscal year 2020.

Jacobs Engineering Group Inc. (NYSE:J) reported net income of \$477.0 million for fiscal year 2021 as compared to \$491.8 million for the prior year. Earnings per share were \$3.20 versus \$3.71 for the prior year. Revenues for the year increased to \$14,092.6 million from \$13,567.0 million for fiscal year 2020.

KBR, Inc. (NYSE:KBR) reported third quarter net income of \$55.0 million for fiscal year 2021 as compared to \$52.0 million for the prior year period. Earnings per share were \$0.38 versus \$0.36 for the prior year period. Revenues for the quarter increased to \$1,843.0 million from \$1,379.0 million for the same period in fiscal year 2020.

Lawson Products, Inc. (NasdaqGS:LAWS) reported third quarter net income of \$3.7 million for fiscal year 2021 as compared to \$1.7 million for the prior year period. Earnings per share were \$0.39 versus \$0.19 for the prior year period. Revenues for the quarter increased to \$105.6 million from \$90.3 million for the same period in fiscal year 2020.

MRC Global Inc. (NYSE:MRC) reported third quarter net income of (\$11.0) million for fiscal year 2021 as compared to \$3.0 million for the prior year period. Earnings per share were (\$0.21) versus (\$0.04) for the prior year period. Revenues for the quarter increased to \$685.0 million from \$585.0 million for the same period in fiscal year 2020.

MSC Industrial Direct Co., Inc. (NYSE:MSM) reported first quarter net income of \$66.1 million for fiscal year 2022 as compared to \$38.5 million for the prior year period. Earnings per share were \$1.18 versus \$0.69 for the prior year period. Revenues for the quarter increased to \$848.5 million from \$771.9 million for the same period in fiscal year 2021.

Primoris Services Corporation (NasdaqGS:PRIM) reported third quarter net income of \$44.1 million for fiscal year 2021 as compared to \$43.9 million for the prior year period. Earnings per share were \$0.81 versus \$0.90 for the prior year period. Revenues for the quarter decreased to \$913.2 million from \$942.7 million for the same period in fiscal year 2020.

Sims Limited (ASX:SGM) announced that **Victoria Binns** has been appointed as an **Independent Non-Executive Director**.

Veolia Environnement S.A. (ENXTPA:VIE) reported third quarter net income of \$424.8 million for fiscal year 2021 as compared to \$336.5 million for the prior year period. Earnings per share were (\$0.00) versus (\$0.00) for the prior year period. Revenues for the quarter increased to \$7,779.2 million from \$7,389.6 million for the same period in fiscal year 2020.

Selected News – Industrial & Technical Services (cont'd)

WESCO International, Inc. (NYSE:WCC) reported third quarter net income of \$119.6 million for fiscal year 2021 as compared to \$80.7 million for the prior year period. Earnings per share were \$2.02 versus \$1.31 for the prior year period. Revenues for the quarter increased to \$4,728.3 million from \$4,141.8 million for the same period in fiscal year 2020.

Note: All per share results are reported on a fully-diluted basis.

MHH Manufacturing Universe Directory

Company	Sector
3M Company	Components & Materials
AECOM	Ind. & Tech. Services
Airbus Group SE	Aerospace & Defense
Akzo Nobel N.V.	Components & Materials
Alps Electric Co. Ltd.	Components & Materials
AMETEK, Inc.	Industrial Equipment
Amphenol Corporation	Components & Materials
Applied Materials, Inc.	Industrial Equipment
Aptiv PLC	Components & Materials
ASML Holding N.V.	Industrial Equipment
Aurubis AG	Ind. & Tech. Services
Autoliv, Inc.	Components & Materials
Axcelis Technologies, Inc.	Industrial Equipment
BAE Systems plc	Aerospace & Defense
Balfour Beatty plc	Ind. & Tech. Services
BASF SE	Components & Materials
Belden Inc.	Components & Materials
Bosch Ltd	Components & Materials
Brooks Automation, Inc.	Industrial Equipment
Cardno Ltd.	Ind. & Tech. Services
Caterpillar Inc.	Industrial Equipment
Celanese Corporation	Components & Materials
Clean Harbors, Inc.	Ind. & Tech. Services
Cohu, Inc.	Industrial Equipment
Commercial Metals Company	Ind. & Tech. Services
Continental Aktiengesellschaft	Components & Materials
Corning Inc.	Components & Materials
Cummins Inc.	Industrial Equipment
Danaher Corporation	Industrial Equipment
Deere & Company	Industrial Equipment
Delphi Automotive PLC	Components & Materials
DENSO Corporation	Components & Materials
Dowa Holdings Co., Ltd.	Ind. & Tech. Services
Dow Inc.	Components & Materials
DuPont de Nemours, Inc.	Components & Materials
Eaton Corporation plc	Industrial Equipment
Embraer S.A.	Aerospace & Defense
Emerson Electric Co.	Industrial Equipment
Encore Wire Corp.	Components & Materials
Entegris, Inc.	Industrial Equipment
Evonik Industries AG	Components & Materials
FARO Technologies, Inc.	Industrial Equipment
Fastenal Company	Ind. & Tech. Services
Ferro Corporation	Components & Materials
Fluor Corporation	Ind. & Tech. Services
FormFactor, Inc.	Industrial Equipment
General Dynamics Corporation	Aerospace & Defense
HD Supply Holdings, Inc.	Ind. & Tech. Services
Honeywell International Inc.	Aerospace & Defense

Company	Sector
Hubbell Incorporated	Industrial Equipment
Huntington Ingalls Industries, Inc.	Aerospace & Defense
Jacobs Engineering Group Inc.	Ind. & Tech. Services
John Wood Group plc	Ind. & Tech. Services
Johnson Controls Inc.	Components & Materials
KBR, Inc.	Ind. & Tech. Services
KLA-Tencor Corporation	Industrial Equipment
Korea Shipbuilding Co. Ltd.	Industrial Equipment
L3Harris Technologies	Aerospace & Defense
Lam Research Corporation	Industrial Equipment
Lawson Products, Inc.	Ind. & Tech. Services
Lear Corp.	Components & Materials
Lockheed Martin Corporation	Aerospace & Defense
MKS Instruments, Inc.	Industrial Equipment
MRC Global Inc.	Ind. & Tech. Services
MSC Industrial Direct Co., Inc.	Ind. & Tech. Services
Nanometrics Incorporated	Industrial Equipment
Northrop Grumman Corporation	Aerospace & Defense
Nova Measuring Instruments Ltd.	Industrial Equipment
NV5 Global, Inc.	Ind. & Tech. Services
OMRON Corporation	Components & Materials
Onto Innovation Inc.	Industrial Equipment
Oshkosh Corporation	Industrial Equipment
Powell Industries, Inc.	Industrial Equipment
PPG Industries, Inc.	Components & Materials
Primoris Services Corporation	Ind. & Tech. Services
Raytheon Technologies Corporation	Aerospace & Defense
Regal Beloit Corporation	Industrial Equipment
Rockwell Automation Inc.	Industrial Equipment
Rolls Royce Holdings plc	Aerospace & Defense
Schneider Electric S.E.	Industrial Equipment
Sims Metal Management Limited	Ind. & Tech. Services
Solvay SA	Components & Materials
Stanley Electric Co. Ltd.	Components & Materials
TE Connectivity Ltd.	Components & Materials
Teradyne, Inc.	Industrial Equipment
Terex Corporation	Industrial Equipment
Tetra Tech, Inc.	Ind. & Tech. Services
Textron Inc.	Aerospace & Defense
Thales SA	Aerospace & Defense
The Boeing Company	Aerospace & Defense
Tokyo Electron Limited	Industrial Equipment
Transcat, Inc.	Ind. & Tech. Services
Veeco Instruments Inc.	Industrial Equipment
Veolia Environnement S.A.	Ind. & Tech. Services
Vishay Intertechnology Inc.	Components & Materials
W.W. Grainger, Inc.	Ind. & Tech. Services
WESCO International, Inc.	Ind. & Tech. Services
Xcerra Corporation	Industrial Equipment

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Mergers & Acquisitions

- Advise buyers and sellers (public and private companies)
- Sale of businesses, strategic acquisitions, management buy-outs, and industry build-ups

Raise Capital

- Equity (control and non-control)
- Mezzanine financing
- Senior and junior debt
- Typically raise capital from banks, finance companies, private investment funds, and private equity groups

Financial Advisory Services

- Analysis of business strategies and options
- Fairness opinions
- Valuations

The Mufson Howe Hunter Manufacturing Update Indices

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