



# Mufson Howe Hunter

## Manufacturing Update Q4 2022

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Mufson Howe Hunter & Company LLC is a middle-market focused investment bank providing M&A, capital raising, and financial advisory services.

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*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-22	Dec-22	Trend
PMI	49.0	48.4	Negative
Total Unemployment	3.7	3.5	Positive
CPI Monthly Change	0.1	-0.1	Positive
PPI Monthly Change	0.3	0.6	Negative
Industrial Production	104.2	103.4	Negative
Capacity Utilization	79.4	78.8	Negative
Manufacturing Production	101.1	99.8	Negative
Manufacturing Utilization	78.5	77.5	Negative

### Sector Index Performance

	3-Year	LTM	3-Month
Aerospace & Defense	-3.8%	12.3%	23.9%
Components & Materials	-8.2%	-28.1%	12.1%
Industrial Equipment	62.2%	-21.1%	16.0%
Industrial & Technical Services	38.9%	-10.1%	11.2%
NASDAQ	16.7%	-33.1%	-3.2%
S&P 500	18.8%	-19.4%	4.4%

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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 MHH Industrial Equipment Index is currently comprised of Ametek Inc., Applied Materials Inc., ASML Holding NV, Axcelis Technologies Inc., Azenta, Inc., Caterpillar Inc., CoHu 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 MHH Industrial & Technical Services Index is currently comprised of AECOM Technology Corp., Aurubis AG, Balfour Beatty plc, Cardno Ltd., Clean Harbors Inc., Commercial Metals Company, Dowa Holdings Co. Ltd., Fastenal Company, Fluor Corp., HD Supply Holdings Inc., Jacobs Engineering Group Inc., John Wood Group plc, KBR 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. The information and statistical data contained herein have been obtained from sources that Mufson Howe Hunter believes are reliable, but Mufson Howe Hunter makes no representation or warranty as to the accuracy or completeness of any such information and data and expressly disclaims any and all liability relating to or resulting from your use of these materials. The information and data contained herein are current and only as of the date(s) indicated and Mufson Howe Hunter has no intention, obligation, or duty to update these materials after such date(s). These materials do not constitute an offer to sell or the solicitation of an offer to buy any securities. Copyright © 2023 Mufson Howe Hunter & Company LLC. All rights reserved. The Manufacturing Update is produced by Mufson Howe Hunter. Mufson Howe Hunter provides a full range of investment banking services to manufacturing companies. For more information, visit [www.mhhco.com](http://www.mhhco.com).

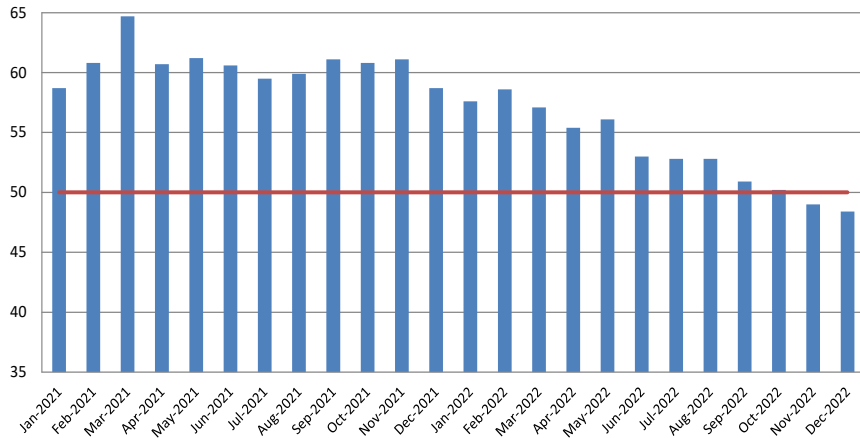
# Major U.S. Economic Indicators

## Manufacturing Update

### Purchase Manager Index (PMI)

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

ISM Manufacturing PMI Composite Index - United States (Monthly)



#### Commentary

Economic activity in the manufacturing sector registered below 50 in November for the second time since May 2020 after 29 consecutive months registering above 50.

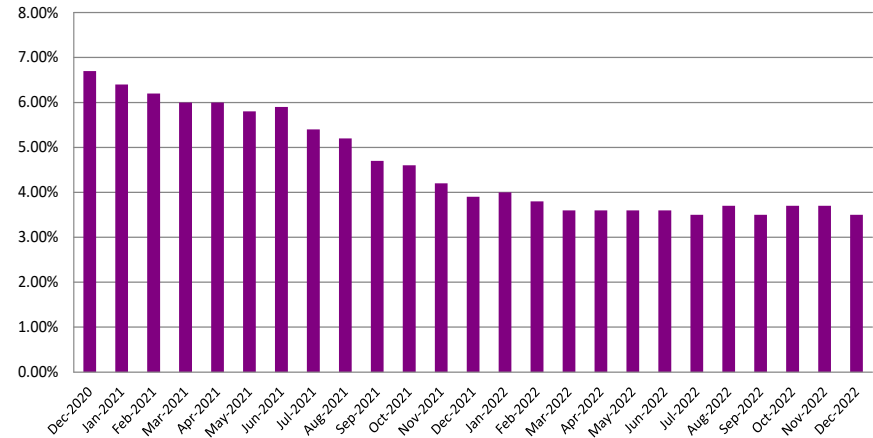
New Orders, Production, Prices and Backlog, as well as the Employment Index, all registered a contraction for the month of December 2022.

Meanwhile, the Supplier Deliveries Index and the New Exports Orders Index increased slightly during December 2022.

### Unemployment Rate

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

Unemployment Rate - United States (Monthly)



#### Commentary

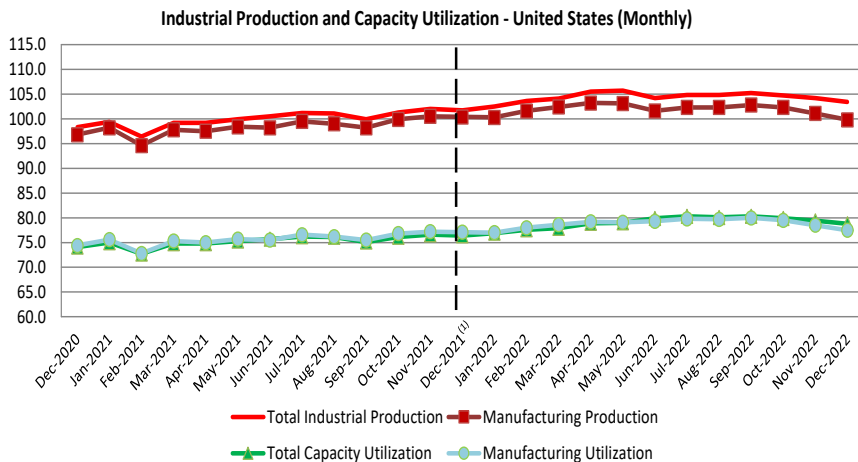
The unemployment rate decreased from 3.7% in November 2022 to 3.5% in December 2022, and the number of unemployed persons remained at 6.0 million. Notable job gains occurred in leisure and hospitality.

# Major U.S. Economic Indicators

## Manufacturing Update

### 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 (i.e., currently 2017). The Capacity Index (in green below), an estimate of sustainable potential output, is also expressed as a percentage of real output in base year terms.

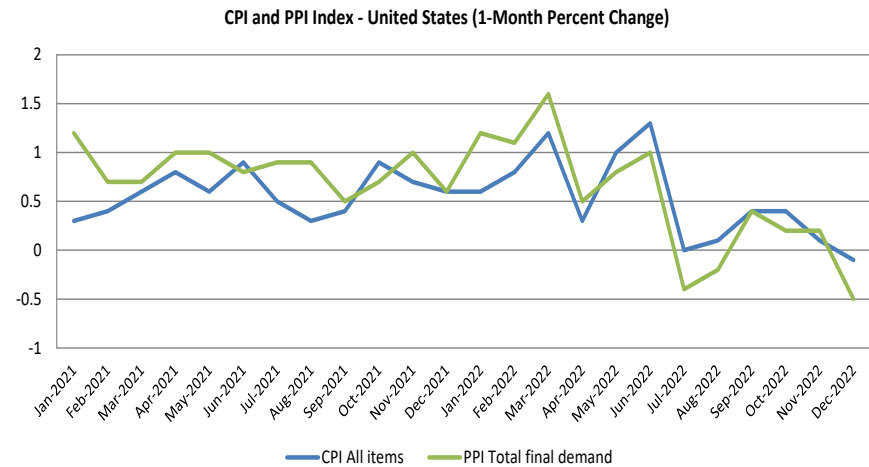


#### Commentary

Industrial production decreased by 0.7% in December. Manufacturing output also decreased by 0.6%. At 103.4% of its 2017 average, total industrial production in December was 2.5% above its year-earlier level. Capacity utilization also decreased by 0.6% in December.

### Producer Price Index and Consumer Price Index

The PPI measures the average change over time in prices received (i.e., 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.



#### Commentary

The Consumer Price Index for All Urban Consumers decreased by 0.1% in December 2022. Consumer prices for all items except food and energy rose 6.5% over the past 12 months. The Producer Price Index for final demand decreased 0.5% in December, final demand prices rose by 6.2% for the 12 months ended in December.

# Sector Index Performance

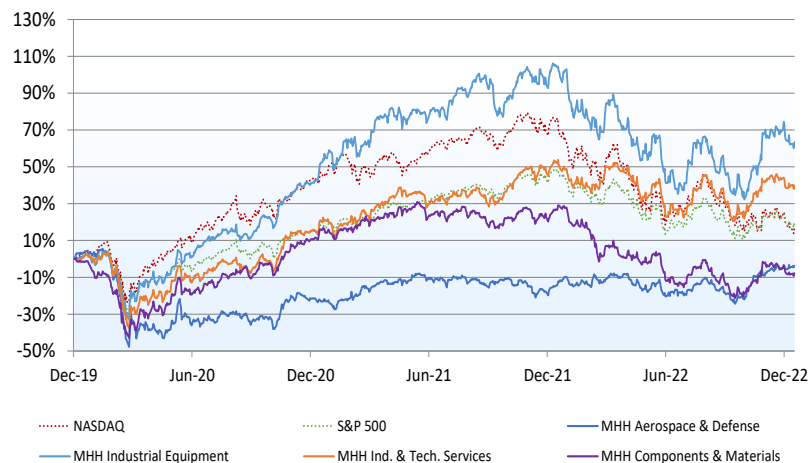
## Manufacturing Update

### Comparative Index Performance <sup>(a)</sup> (Last Three Years)

#### Last Three Years

Daily from December 31, 2019 to December 30, 2022

Price as Percent of Base (December 31, 2019 = 0%)

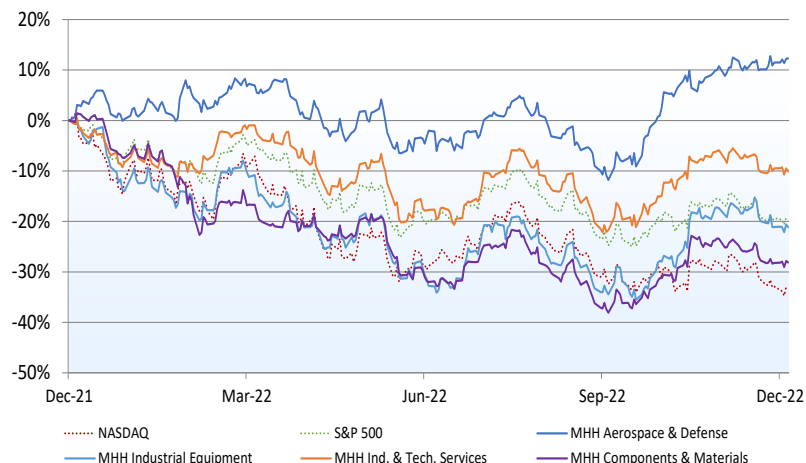


### Comparative Index Performance <sup>(a)</sup> (Last Twelve Months)

#### Last Twelve Months

Daily from December 31, 2021 to December 30, 2022

Price as Percent of Base (December 31, 2021 = 0%)



#### Index Price Performance

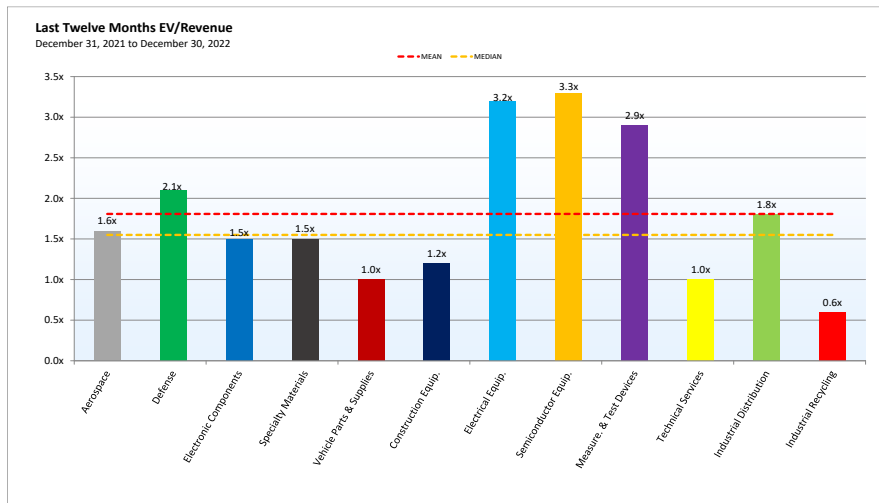
	3-Year	LTM	3-Month
MHH Aerospace & Defense	-3.8%	12.3%	23.9%
MHH Components & Materials	-8.2%	-28.1%	12.1%
MHH Industrial Equipment	62.2%	-21.1%	16.0%
MHH Industrial & Technical Services	38.9%	-10.1%	11.2%
NASDAQ	16.7%	-33.1%	-3.2%
S&P 500	18.8%	-19.4%	4.4%

(a) Market cap weighted index assuming no dividend reinvestment.

# Subsector Statistics

## Manufacturing Update

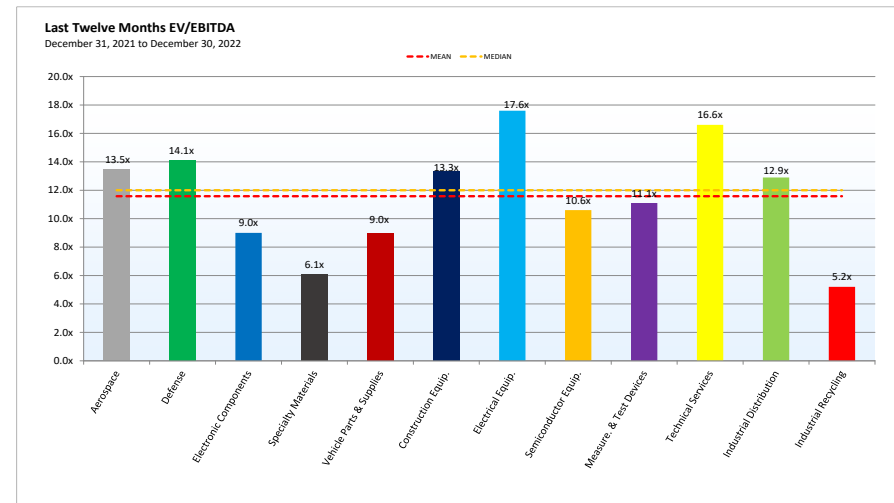
### Comparative Subsector LTM EV/Revenue



#### Commentary

During the last twelve months, our subsector indices had a mean EV/Revenue of 1.8x (i.e., red line) and a median of 1.6x (i.e., yellow line). Of the subsectors, Semiconductor Capital Equipment had the high multiple at 3.3x and Industrial Recycling had the low multiple at 0.6x.

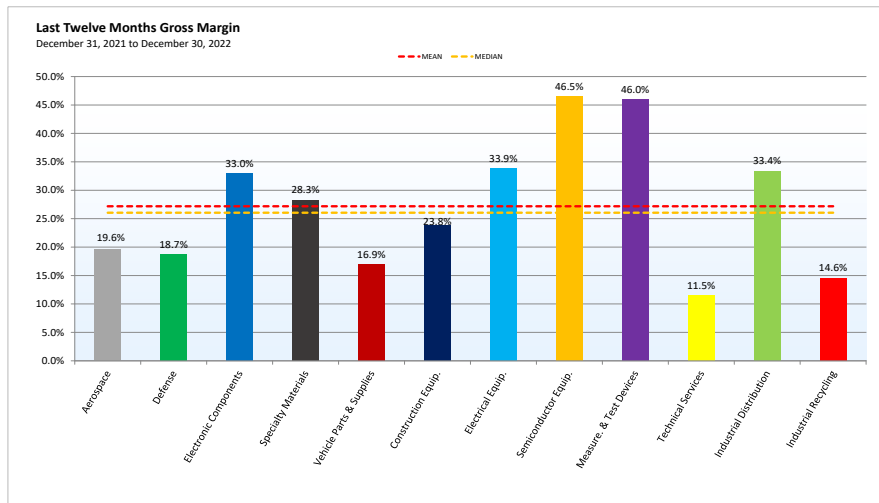
### Comparative Subsector LTM EV/EBITDA



#### Commentary

During the last twelve months, our subsector indices had a mean EV/EBITDA of 11.6x and a median of 12.0x. Of the subsectors, Electrical Equipment had the high multiple at 17.6x and Industrial Recycling had the low multiple at 5.2x.

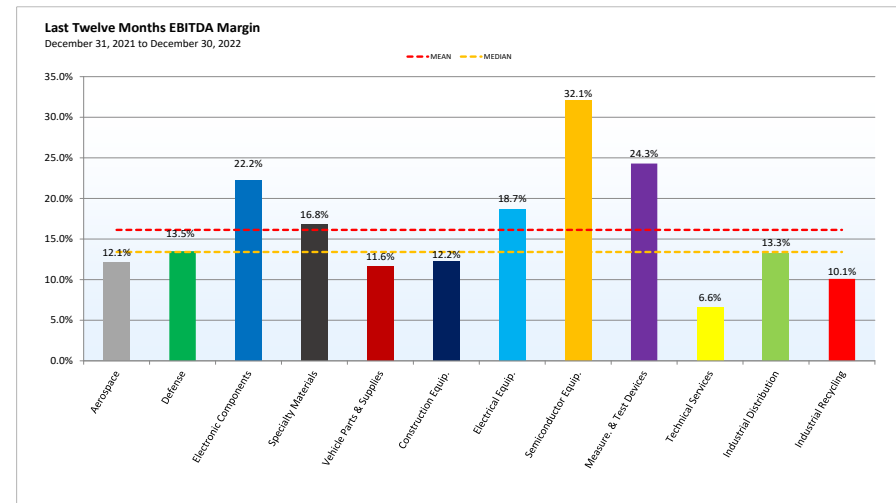
### Comparative Subsector LTM Gross Margin



#### Commentary

During the last twelve months, our subsector indices had a mean Gross Margin of 27.2% and a median of 26.1%. Of the subsectors, Semiconductor Capital Equipment had the high margin at 46.5%, and Technical Services had the low margin at 11.5%.

### Comparative Subsector LTM EBITDA Margin



#### Commentary

During the last twelve months, our subsector indices had a mean EBITDA Margin of 16.1% and a median of 13.4%. Of the subsectors, Semiconductor Equipment had the high margin at 32.1% and Technical services had the low margin at 6.6%.

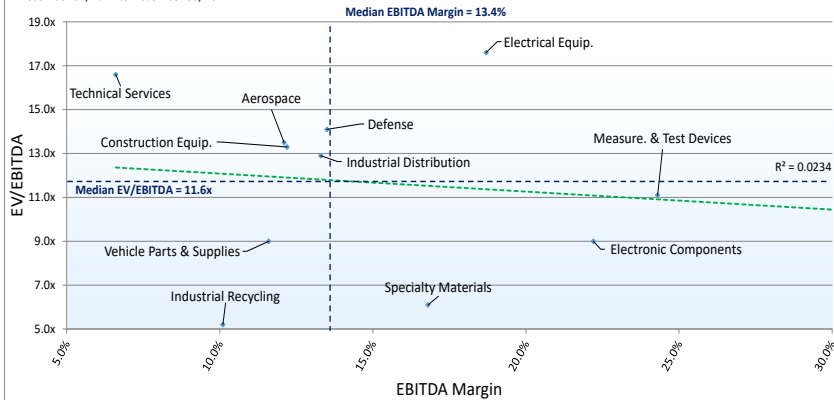
# Subsector Trading Multiples & Margins

Last Twelve Months from December 31, 2021 to December 30, 2022

## Index Subsector LTM EV/EBITDA vs EBITDA Margin

### Last Twelve Months EV/EBITDA & EBITDA Margin

December 31, 2021 to December 30, 2022



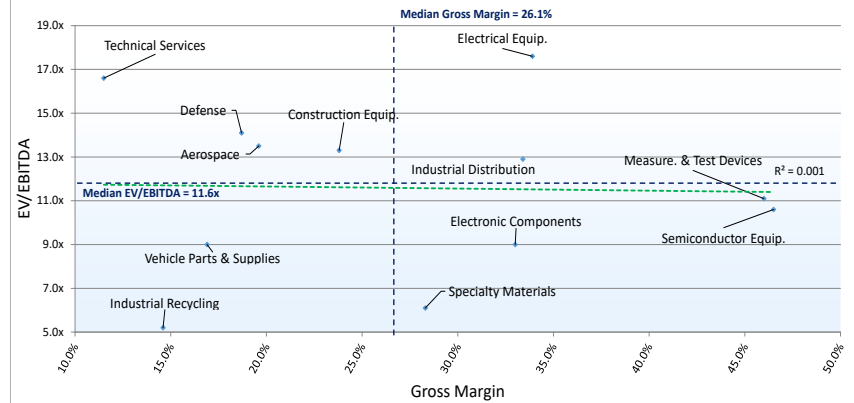
\*Upper Right ("Northeast") Quadrant: Leaders; Lower Left ("Southwest") Quadrant: Laggards

\*Note: The green dotted line represents the regression line.

## Index Subsector LTM EV/EBITDA vs. Gross Margin

### Last Twelve Months EV/EBITDA & Gross Margin

December 31, 2021 to December 30, 2022



\*Upper Right ("Northeast") Quadrant: Leaders; Lower Left ("Southwest") Quadrant: Laggards

\*Note: The green dotted line represents the regression line.

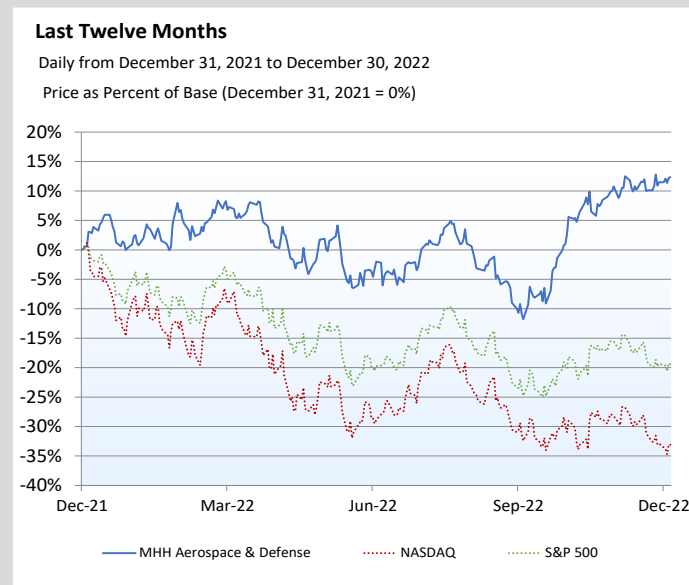
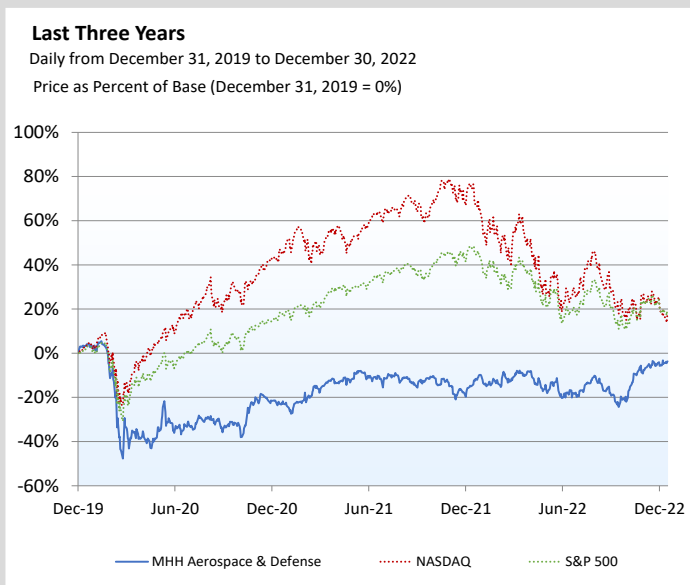


# Comparative Index Performance

## Aerospace & Defense

### Comparative Index <sup>(a)</sup> Performance

The MHH Aerospace & Defense Index<sup>(a)</sup> increased by 23.9% during the three months ending December 30, 2022.



#### Index Price Performance

	3-Year	LTM	3-Month
MHH Aerospace & Defense	-3.8%	12.3%	23.9%
NASDAQ	16.7%	-33.1%	-3.2%
S&P 500	18.8%	-19.4%	4.4%

(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.

# Selected Valuation Metrics

## Aerospace & Defense

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

Company	Market & Capitalization			LTM Performance <sup>(3)</sup>			Valuation			Margins	
	Price <sup>(1)</sup>	Equity Value	Enterprise Value <sup>(2)</sup>	Revenue	EBITDA <sup>(4)</sup>	EPS	Enterprise Value/ Revenue	EBITDA	Price/ EPS	Gross Profit	EBITDA
<b>Aerospace</b>											
Raytheon Technologies Corporation (RTX)	\$100.92	\$148,530	\$179,716	\$66,025	\$11,370	\$2.38	2.72x	15.8x	NM	20.5%	17.2%
The Boeing Company (BA)	190.49	113,529	156,555	61,421	(2,681.00)	(7.42)	2.55x	NM	NM	1.5%	NM
Honeywell International Inc. (HON)	214.30	144,079	154,691	34,937	8,499	6.38	4.43x	18.2x	33.6x	32.3%	24.3%
Airbus SE (ENXTPA:AIR)	118.65	93,435	89,645	54,043	6,565	3.60	1.66x	13.7x	33.0x	17.7%	12.1%
Thales S.A. (ENXTPA:HO)	127.50	26,995	28,145	17,541	2,117	4.17	1.60x	13.3x	30.6x	25.0%	12.1%
Textron Inc. (TXT)	70.80	14,781	16,894	12,555	1,510	2.90	1.35x	11.2x	24.4x	16.4%	12.0%
Rolls-Royce Holdings plc (LSE:RR.)	1.12	9,411	15,890	14,167	1,239	(0.02)	1.12x	12.8x	NM	20.4%	8.7%
Embraer S.A. (BOVESPA:EMBR3)	2.71	1,989	3,787	3,746	-92	-0.10	1.01x	NM	NM	18.8%	NM
<b>Mean</b>		<b>\$69,093</b>	<b>\$80,665</b>	<b>\$33,054</b>	<b>\$3,566</b>	<b>\$1.49</b>	<b>2.05x</b>	<b>14.2x</b>	<b>30.4x</b>	<b>19.1%</b>	<b>14.4%</b>
<b>Median</b>		<b>60,215</b>	<b>58,895</b>	<b>26,239</b>	<b>1,813</b>	<b>2.64</b>	<b>1.63x</b>	<b>13.5x</b>	<b>31.8x</b>	<b>19.6%</b>	<b>12.1%</b>
<b>Defense</b>											
Lockheed Martin Corporation (LMT)	\$486.49	\$127,496	\$136,546	\$64,722	\$8,623	\$16.19	2.11x	15.8x	30.0x	13.0%	13.3%
Northrop Grumman Corporation (NOC)	545.61	83,976	96,558	35,208	8,580	26.88	2.74x	11.3x	20.3x	20.5%	24.4%
General Dynamics Corporation (GD)	248.11	67,986	78,612	38,848	5,322	8.87	2.02x	14.8x	28.0x	16.9%	13.7%
L3Harris Technologies, Inc. (LHX)	208.21	39,644	46,994	16,834	3,454	7.28	2.79x	13.6x	28.6x	29.5%	20.5%
BAE Systems plc (BA.)	10.31	31,671	37,813	24,207	2,592	0.34	1.56x	14.6x	30.3x	62.9%	10.7%
Huntington Ingalls Industries, Inc. (HII)	230.68	9,205	12,294	10,541	1,147	11.96	1.17x	10.7x	19.3x	14.0%	10.9%
<b>Mean</b>		<b>\$59,996</b>	<b>\$68,136</b>	<b>\$31,727</b>	<b>\$4,953</b>	<b>\$11.92</b>	<b>2.07x</b>	<b>13.5x</b>	<b>26.1x</b>	<b>26.1%</b>	<b>15.6%</b>
<b>Median</b>		<b>53,815</b>	<b>62,803</b>	<b>29,707</b>	<b>4,388</b>	<b>10.41</b>	<b>2.07x</b>	<b>14.1x</b>	<b>28.3x</b>	<b>18.7%</b>	<b>13.5%</b>

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

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close December 30, 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, 2022 excluding GD, RTX, BA, TXT, LMT (December 31, 2022); HO, BA., & RR (June 30, 2022).

(4) Excludes non-recurring and discontinued operations.

# Selected M&A Transactions

## Aerospace & Defense

Announced	Target	Target Description	Acquirer	Value
Oct 31	NetReveal (UK) Limited.	Designs and develops enterprise investigation management platform. The company's platform provides real-time financial crime, risk management, and fraud detection and prevention solutions	BAE Systems plc (LSE:BA.)	ND
Oct 11	Grupo S21sec Gestion, S.A.	Provides cyber security services to protect businesses and public sector organizations.	Thales S.A. (ENXTPA:HO)	\$120.0

*ND – Not disclosed. Transaction values in millions.*

# Selected News

## Aerospace & Defense

**Airbus SE (ENXTPA:AIR)** reported third quarter net income of \$654.0 million for fiscal year 2022 as compared to \$468.2 million for the prior year period. Earnings per share were \$0.83 versus \$0.59 for the prior year period. Revenues for the quarter increased to \$13,050.6 million from \$12,190.5 million for the same period in fiscal year 2021.

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**Carmat SA (ENXTPA: ALCAR)** appointed **Alexandre Conroy** as **Chairman of the Board of Directors**.

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**Embraer S.A. (NYSE:ERJ)** reported third quarter net income of (\$29.6) million for fiscal year 2022 as compared to (\$43.2) million for the prior year period. Earnings per share were (\$0.04) versus (\$0.06) for the prior year period. Revenues for the quarter decreased to \$900.2 million from \$924.0 million for the same period in fiscal year 2021.

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**Huntington Ingalls Industries, Inc. (NYSE:HII)** reported third quarter net income of \$138.0 million for fiscal year 2022 as compared to \$147.0 million for the prior year period. Earnings per share were \$3.44 versus \$3.65 for the prior year period. Revenues for the quarter increased to \$2,626.0 million from \$2,338.0 million for the same period in fiscal year 2021.

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**Huntington Ingalls Industries, Inc. (NYSE: HII)** appointed **Leo Denault** to its **Board of Directors**.

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**L3Harris Technologies, Inc. (NYSE:LHX)** reported third quarter net income of (\$300.0) million for fiscal year 2022 as compared to \$481.0 million for the prior year period. Earnings per share were (\$1.57) versus \$2.39 for the prior year period. Revenues for the quarter increased to \$4,246.0 million from \$4,229.0 million for the same period in fiscal year 2021.

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**Northrop Grumman Corporation (NYSE: NOC)** appointed **Arvind Krishna** to its **Board of Directors**.

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**Thales S.A. (ENXTPA:HO)** reported second quarter net income of \$295.6 million for fiscal year 2022 as compared to \$256.3 million for the prior year period. Earnings per share were \$1.39 versus \$1.20 for the prior year period. Revenues for the quarter decreased to \$4,315.4 million from \$4,546.4 million for the same period in fiscal year 2021.

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**The Boeing Company (NYSE: BA)** appointed **Brendan Nelson** as **President**.

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**Textron Inc. (NYSE: TXT)** appointed **Thomas Kennedy** to its **Board of Directors**.

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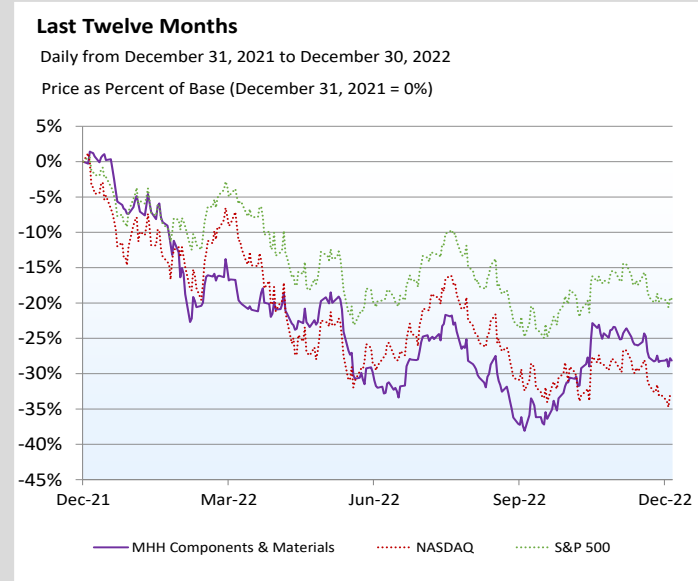
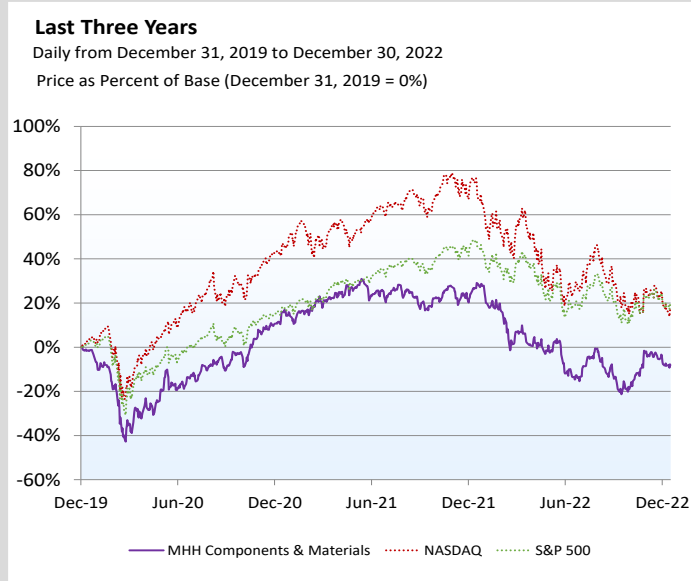
*Note: All per share results are reported on a fully-diluted basis.*

# Comparative Index Performance

## Components & Materials

### Comparative Index <sup>(a)</sup> Performance

The MHH Components & Materials index<sup>(a)</sup> increased by 12.1% during the three months ending December 30, 2022.



#### Index Price Performance

	3-Year	LTM	3-Month
MHH Components & Materials <sup>(a)</sup>	-8.2%	-28.1%	12.1%
NASDAQ	16.7%	-33.1%	-3.2%
S&P 500	18.8%	-19.4%	4.4%

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

# Selected Valuation Metrics

## Components & Materials

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

Company	Market & Capitalization			LTM Performance <sup>(3)</sup>			Valuation			Margins	
	Price <sup>(1)</sup>	Equity Value	Enterprise Value <sup>(2)</sup>	Revenue	EBITDA <sup>(4)</sup>	EPS	Enterprise Value/ Revenue	Price/ EBITDA	Price/ EPS	Gross Profit	EBITDA
<b>Electronic Components</b>											
Amphenol Corp. (APH)	\$76.14	\$45,310	\$48,890	\$12,411	\$2,938	\$2.41	3.94x	16.6x	31.6x	31.7%	23.7%
TE Connectivity Ltd (TEL)	114.80	36,418	40,065	16,304	3,656	5.45	2.46x	11.0x	21.0x	31.8%	22.4%
Corning Inc. (GLW)	31.94	27,015	33,127	14,459	3,477	1.76	2.29x	9.5x	18.1x	34.2%	24.0%
Omron Corp. (TSE:6645)	48.57	9,617	8,997	5,515	761	1.68	1.63x	11.8x	28.9x	44.8%	13.8%
Belden Inc. (BDC)	71.90	3,078	3,649	2,666	432	4.10	1.37x	8.5x	17.5x	36.8%	16.2%
Vishay Intertechnology (VSH)	21.57	3,056	2,719	3,485	761	2.55	0.78x	3.6x	8.4x	30.0%	21.8%
Alps Electric Ltd (TSE:6770)	9.08	1,865	2,029	6,149	639	1.12	0.33x	3.2x	8.1x	18.5%	10.4%
Encore Wire Corp. (WIRE)	137.56	2,523	1,950	3,012	930	28.51	0.65x	2.1x	4.8x	36.5%	30.9%
<b>Mean</b>		<b>\$16,110</b>	<b>\$17,678</b>	<b>\$8,000</b>	<b>\$1,699</b>	<b>\$5.95</b>	<b>1.68x</b>	<b>8.3x</b>	<b>17.3x</b>	<b>33.0%</b>	<b>20.4%</b>
<b>Median</b>		<b>6,347</b>	<b>6,323</b>	<b>5,832</b>	<b>845</b>	<b>2.48</b>	<b>1.50x</b>	<b>9.0x</b>	<b>17.8x</b>	<b>33.0%</b>	<b>22.1%</b>
<b>Specialty Materials</b>											
3M Company (MMM)	\$119.92	\$69,104	\$82,222	\$34,762	\$6,969	\$5.07	2.37x	11.8x	23.7x	44.4%	20.0%
BASF SE (DE:BAS)	49.58	44,348	66,189	86,075	11,380	4.79	0.77x	5.8x	10.3x	24.1%	13.2%
Dow Inc. (DOW)	50.39	35,462	48,171	59,407	9,958	6.15	0.81x	4.8x	8.2x	16.6%	16.8%
DuPont de Nemours (DD)	68.63	34,095	45,215	17,246	4,264	2.75	2.62x	10.6x	25.0x	34.4%	24.7%
PPG Industries, Inc. (PPG)	125.74	29,552	36,104	17,657	2,161	4.36	2.04x	16.7x	28.8x	37.0%	12.2%
Akzo Nobel N.V. (ENXTAM:AKZA)	66.86	11,861	16,315	10,436	1,037	2.23	1.56x	15.7x	30.0x	36.3%	9.9%
Celanese Corp. (CE)	102.24	11,086	14,344	9,600	2,333	11.69	1.49x	6.1x	8.7x	28.3%	24.3%
Evonik Industries AG (DE:EVK)	19.17	8,932	12,935	17,884	2,296	1.80	0.72x	5.6x	10.7x	24.5%	12.8%
Solvay SA (ENXTBR:SOLB)	100.95	10,463	12,719	15,142	2,907	13.56	0.84x	4.4x	7.4x	24.4%	19.2%
<b>Mean</b>		<b>\$28,323</b>	<b>\$37,135</b>	<b>\$29,801</b>	<b>\$4,812</b>	<b>\$5.82</b>	<b>1.47x</b>	<b>9.1x</b>	<b>17.0x</b>	<b>30.0%</b>	<b>17.0%</b>
<b>Median</b>		<b>29,552</b>	<b>36,104</b>	<b>17,657</b>	<b>2,907</b>	<b>4.79</b>	<b>1.49x</b>	<b>6.1x</b>	<b>10.7x</b>	<b>28.3%</b>	<b>16.8%</b>
<b>Vehicle Parts and Supplies</b>											
Johnson Controls Inc. (JCI)	\$64.00	\$43,949	\$53,279	\$25,299	\$3,190	\$1.86	2.11x	16.7x	34.4x	33.0%	12.6%
Denso Corp. (TSE:6902)	49.56	37,114	39,799	41,142	4,892	1.97	0.97x	8.1x	25.1x	13.7%	11.9%
Aptiv PLC (APTIV)	93.13	25,234	27,343	16,983	1,907	1.73	1.61x	14.3x	NM	14.3%	11.2%
Continental AG (DB:CON)	60.23	11,966	19,144	37,177	845	0.36	0.51x	22.6x	NM	21.2%	2.3%
Lear Corp. (LEA)	124.02	7,330	9,853	20,400	1,312	5.14	0.48x	7.5x	24.1x	7.2%	6.4%
Autoliv, Inc. (ALV)	76.58	6,650	8,025	8,626	887	3.28	0.93x	9.0x	23.4x	15.8%	10.3%
Bosch Ltd. (BSE:500530)	208.41	6,147	5,755	1,657	203	3.97	3.47x	NM	NM	35.5%	12.2%
Stanley Electric Co. Ltd. (TSE:6923)	19.18	3,068	2,301	2,879	473	0.78	0.80x	4.9x	24.6x	17.9%	16.4%
<b>Mean</b>		<b>\$17,682</b>	<b>\$20,687</b>	<b>\$19,270</b>	<b>\$1,714</b>	<b>\$2.39</b>	<b>1.36x</b>	<b>11.9x</b>	<b>26.3x</b>	<b>19.8%</b>	<b>10.4%</b>
<b>Median</b>		<b>9,648</b>	<b>14,498</b>	<b>18,692</b>	<b>1,099</b>	<b>1.92</b>	<b>0.95x</b>	<b>9.0x</b>	<b>24.6x</b>	<b>16.9%</b>	<b>11.6%</b>

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

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close December 30, 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 September 30, 2022 excluding APH, MMM, PPG (December 31, 2022); TEL (December 30, 2022); BDC (October 02, 2022); HSH & LEA (October 01, 2022).

(4) Excludes non-recurring and discontinued operations.

# Selected M&A Transactions

## Components & Materials

Announced	Target	Target Description	Acquirer	Value
Dec 29	TAA Derivatives business from Evonik Industries AG. (XTRA: EVK).	Engages in the production of raw material to produce light stabilizer.	SABO S.p.A.	ND
Dec 23	Wind River Systems, Inc, business from TPG Capital, L.P.	Offers cloud native toolset for developing, deploying, operating, and servicing mission-critical intelligent systems.	Aptiv Plc. (NYSE: APTV)	\$3,500.0
Dec 15	Computerised and Digital Security Systems Limited.	Provides bespoke security systems service, including CCTV, fire alarms, access control, perimeter intruder detection systems, and automatic number plate recognition software.	Johnson Controls International plc. (NYSE: JCI)	ND
Dec 05	Backes Transportbrandservice Ab.	Provides, supplies, services, and repairs conveyor belts made of rubber and PVC, and accessories for conveyor belts.	Continental Aktiengesellschaft. (XTRA: CON)	ND
Dec 02	Wheel Liquid Coatings business from Lankiwitzer Lackfabrik GmbH.	Comprises industrial coatings manufacturing business	Akzo Nobel N.V. (ENXTAM: AKZA)	ND
Nov 18	Intouch Automation, Inc.	Manufactures assembly, function test, and calibration equipment used in the production of automotive seating components.	Lear Corporation. (NYSE: LEA)	ND
Oct 31	MaxPower Semiconductor, Inc.	Manufactures and sells discrete semiconductors and passive electronic components.	Vishay Intertechnology, Inc. (NYSE: VSH)	\$110.0

ND – Not disclosed. Transaction values in millions.

# Selected M&A Transactions

## Components & Materials

Announced	Target	Target Description	Acquirer	Value
Oct 26	Integrated Cable Assembly Holdings, Inc.	The company offers simple power harnesses to large scale aerospace and automotive harnesses, as well as single wire leads, complex bundled assemblies, and electro-mechanical integrated assemblies.	Amphenol Corporation. (NYSE: APH)	ND
Oct 05	Rescue Air Systems, Inc.	Manufactures and designs firefighter air replenishment systems (FARS).	Johnson Controls International plc. (NYSE: JCI)	\$100.0
Oct 04	Calostat business from Evonik Industries AG. (XTRA: EVK)	Comprises insulation boards manufacturing business.	Kingspan Group plc. (ISE: KRX)	ND
Oct 03	Rochester Wire and Cable, LLC, business from TE Connectivity Ltd. (NYSE: TEL)	Offers electrical optical cables, such as side scan sonar tow, electro-optic tow, armored mining, single conductor CTD and instrumentation, ROV and plow umbilical, offshore oil, coaxial, TV inspection, and multi conductor instrumentation cables.	Hexatonic Group AB. (OM: HTRO)	\$55.0

*ND – Not disclosed. Transaction values in millions.*



# Selected News

## Components & Materials

**Belden Inc. (NYSE:BDC)** reported third quarter net income of \$98.3 million for fiscal year 2022 as compared to \$41.3 million for the prior year period. Earnings per share were \$2.23 versus \$0.91 for the prior year period. Revenues for the quarter increased to \$670.5 million from \$604.8 million for the same period in fiscal year 2021.

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**Bionik Laboratories Corporation. (OTCPK: BNKL)** appointed **Richard Russo** as **Chief Executive Officer** and **Dan Gonsalves** as **Chief Financial Officer**.

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**Continental Aktiengesellschaft (XTRA: CON)** appointed **Aruna Anand** as **President and Chief Executive Officer**.

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**Lear Corporation (NYSE:LEA)** reported third quarter net income of \$92.3 million for fiscal year 2022 as compared to (\$26.5) million for the prior year period. Earnings per share were \$1.54 versus (\$0.44) for the prior year period. Revenues for the quarter increased to \$5,241.2 million from \$4,268.2 million for the same period in fiscal year 2021.

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**TE Connectivity Ltd. (NYSE:TEL)** reported first quarter net income of \$397.0 million for fiscal year 2023 as compared to \$566.0 million for the prior year period. Earnings per share were \$1.25 versus \$1.72 for the prior year period. Revenues for the quarter increased to \$3,841.0 million from \$3,818.0 million for the same period in fiscal year 2022.

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**Vishay Intertechnology, Inc. (NYSE:VSH)** reported third quarter net income of \$140.1 million for fiscal year 2022 as compared to \$96.8 million for the prior year period. Earnings per share were \$0.98 versus \$0.67 for the prior year period. Revenues for the quarter increased to \$924.8 million from \$813.7 million for the same period in fiscal year 2021.

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**Vishay Intertechnology, Inc. (NYSE:VSH)** appointed **Joel Smejkal** to its **Board of Directors**.

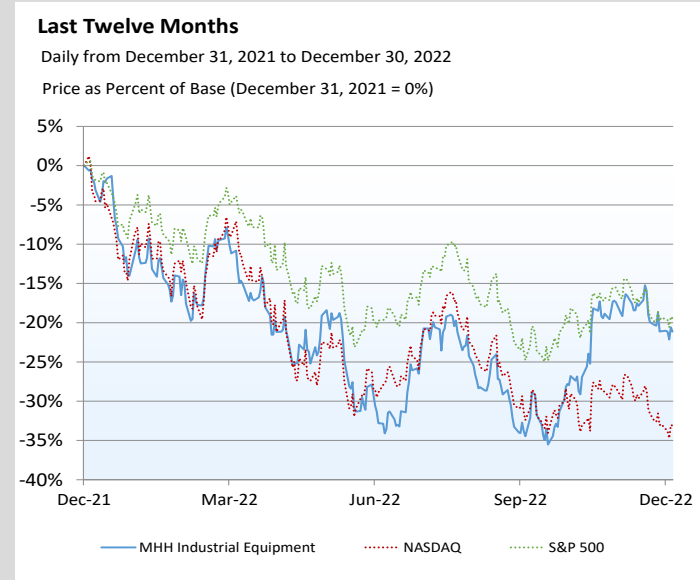
*Note: All per share results are reported on a fully-diluted basis.*

# Comparative Index Performance

## Industrial Equipment

### Comparative Index <sup>(a)</sup> Performance

The MHH Industrial Equipment index <sup>(a)</sup> increased by 16% during the three months ending December 30, 2022.



#### Index Price Performance

	3-Year	LTM	3-Month
MHH Industrial Equipment <sup>(a)</sup>	62.2%	-21.1%	16.0%
NASDAQ	16.7%	-33.1%	-3.2%
S&P 500	18.8%	-19.4%	4.4%

(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.

# Selected Valuation Metrics

## Industrial Equipment

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

Company	Market & Capitalization			LTM Performance <sup>(3)</sup>			Valuation			Margins	
	Price <sup>(1)</sup>	Equity	Enterprise	Revenue	EBITDA <sup>(4)</sup>	EPS	Enterprise Value/		Price/	Gross	EBITDA
		Value	Value <sup>(2)</sup>				Revenue	EBITDA	EPS		
<b>Construction Equipment</b>											
Deere & Company (DE)	\$428.76	\$127,872	\$177,154	\$52,563	\$10,804	\$19.35	3.37x	16.4x	22.2x	27.6%	20.6%
Caterpillar Inc. (CAT)	239.56	124,669	153,801	56,628	11,151	10.78	2.72x	13.8x	22.2x	25.6%	19.7%
Cummins Inc. (CMI)	242.29	34,168	41,182	26,154	3,199	11.48	1.57x	12.9x	21.1x	23.8%	12.2%
Korea Shipbuilding & Offshore Engineering Co., Ltd. (KOSE:A009540)	56.22	3,975	6,391	11,711	(530)	(5.49)	0.55x	NM	NM	NM	NM
Oshkosh Corp. (OSK)	88.19	5,767	5,896	7,084	(55)	(2.47)	0.83x	NM	NM	6.1%	NM
Terex Corp. (TEX)	42.72	2,884	3,478	4,190	418	3.01	0.83x	8.3x	14.2x	19.3%	10.0%
<b>Mean</b>		<b>\$49,889</b>	<b>\$64,651</b>	<b>\$26,388</b>	<b>\$4,164</b>	<b>\$6.11</b>	<b>1.64x</b>	<b>12.8x</b>	<b>19.9x</b>	<b>20.5%</b>	<b>15.6%</b>
<b>Median</b>		<b>19,968</b>	<b>23,787</b>	<b>18,933</b>	<b>1,808</b>	<b>6.90</b>	<b>1.20x</b>	<b>13.3x</b>	<b>21.6x</b>	<b>23.8%</b>	<b>16.0%</b>
<b>Electrical Equipment</b>											
Schneider Electric SE (ENXTPA:SU)	\$139.70	\$77,552	\$91,427	\$32,624	\$6,073	\$5.45	2.80x	15.1x	25.6x	40.6%	18.6%
Emerson Electric Co. (EMR)	96.06	56,810	71,824	19,629	4,590	3.67	3.66x	15.6x	26.2x	41.7%	23.4%
Eaton Corporation plc (ETN)	156.95	62,419	71,391	20,166	3,787	4.14	3.54x	18.9x	37.9x	32.8%	18.8%
Ametek Inc. (AME)	139.72	32,087	34,302	6,029	1,775	3.73	5.69x	19.3x	37.5x	34.9%	29.4%
Rockwell Automation Inc. (ROK)	257.57	29,555	33,552	7,760	1,561	6.60	4.32x	21.5x	39.1x	40.0%	20.1%
Hubbell Inc. (HUBB)	234.68	12,604	13,788	4,828	811	7.20	2.86x	17.0x	32.6x	29.1%	16.8%
Regal Rexnord Corporation (RRX)	119.98	7,937	9,561	5,190	919	5.15	1.84x	10.4x	23.3x	31.1%	17.7%
Powell Industries, Inc. (POWL)	35.18	416	302	533	17	0.52	0.57x	18.2x	NM	16.0%	3.1%
<b>Mean</b>		<b>\$34,922</b>	<b>\$40,768</b>	<b>\$12,095</b>	<b>\$2,442</b>	<b>\$4.55</b>	<b>3.16x</b>	<b>17.0x</b>	<b>31.7x</b>	<b>33.3%</b>	<b>18.5%</b>
<b>Median</b>		<b>30,821</b>	<b>33,927</b>	<b>6,895</b>	<b>1,668</b>	<b>4.64</b>	<b>3.20x</b>	<b>17.6x</b>	<b>32.6x</b>	<b>33.9%</b>	<b>18.7%</b>
<b>Measurement, Control, and Testing Devices</b>											
Danaher Corporation (DHR)	\$265.42	\$193,216	\$209,989	\$31,250	\$10,896	\$7.17	6.72x	19.3x	37.0x	60.8%	34.9%
Xcerra Corporation (XCRA)	39.76	29,596	34,610	32,812	5,455	2.84	1.05x	6.3x	14.0x	33.4%	16.6%
Entegris, Inc. (ENTG)	65.59	9,775	14,933	2,971	782	1.79	5.03x	19.1x	36.7x	43.3%	26.3%
MKS Instruments, Inc. (MKS)	84.73	5,635	9,985	3,225	838	6.56	3.10x	11.9x	12.9x	43.9%	26.0%
Onto Innovation Inc. (ONTO)	68.09	3,372	2,841	978	295	2.89	2.91x	9.6x	23.6x	53.8%	30.2%
Axcelis Technologies, Inc. (ACLS)	79.36	2,607	2,323	860	209	3.41	2.70x	11.1x	23.2x	44.4%	24.3%
Azenta, Inc. (NasdaqGS:AZTA) <sup>(5)</sup>	58.22	4,020	2,155	555	30	(0.07)	3.88x	NM	NM	46.0%	5.3%
Nova Measuring Instruments Ltd. (NVM)	81.68	2,345	2,093	541	157	2.95	3.87x	13.3x	27.6x	56.8%	29.1%
FormFactor, Inc. (FORM)	22.23	1,712	1,514	787	146	0.89	1.92x	10.3x	24.9x	44.0%	18.6%
Cohu, Inc. (COHU)	32.05	1,529	1,263	814	169	1.60	1.55x	7.5x	20.1x	46.3%	20.8%
FARO Technologies, Inc. (FARO)	29.41	552	524	342	1	(0.36)	1.53x	NM	NM	52.7%	0.2%
<b>Mean</b>		<b>\$23,124</b>	<b>\$25,657</b>	<b>\$6,830</b>	<b>\$1,725</b>	<b>\$2.70</b>	<b>3.11x</b>	<b>12.0x</b>	<b>24.4x</b>	<b>47.8%</b>	<b>21.1%</b>
<b>Median</b>		<b>3,372</b>	<b>2,323</b>	<b>860</b>	<b>209</b>	<b>2.84</b>	<b>2.91x</b>	<b>11.1x</b>	<b>23.6x</b>	<b>46.0%</b>	<b>24.3%</b>

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

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close December 30, 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, 2022 excluding DHR (December 31, 2022); DE & AMAT (October 30, 2022); TER & ASML (October 02, 2022); ENTG & ONTO (October 01, 2022); LRCX (September 25, 2022); COHU & FORM (September 24, 2022) and SU & XCRA (June 30, 2022).

(4) Excludes non-recurring and discontinued operations.

# Selected Valuation Metrics (cont'd)

## Industrial Equipment

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

Company	Market & Capitalization			LTM Performance <sup>(3)</sup>			Valuation			Margins	
	Price <sup>(1)</sup>	Equity Value	Enterprise Value <sup>(2)</sup>	Revenue	EBITDA <sup>(4)</sup>	EPS	Enterprise Value/Revenue	Price/EBITDA	Price/EPS	Gross Profit	EBITDA
<b>Semiconductor Capital Equipment</b>											
ASML Holding NV (ASML)	\$538.42	\$214,796	\$214,946	\$19,346	\$6,575	\$9.62	NM	NM	NM	51.1%	34.0%
Applied Materials, Inc. (AMAT)	97.38	82,202	85,450	25,785	8,266	5.43	3.31x	10.3x	17.9x	46.5%	32.1%
Lam Research Corp. (LRCX)	420.30	57,320	57,947	19,048	6,383	26.27	3.04x	9.1x	16.0x	45.3%	33.5%
KLA-Tencor Corp. (KLAC)	377.03	53,432	56,902	9,852	4,324	15.86	5.78x	13.2x	23.8x	61.2%	43.9%
Tokyo Electron Ltd (TSE:8035)	294.83	46,004	42,329	15,580	4,939	18.69	2.72x	8.6x	15.8x	45.1%	31.7%
Teradyne Inc. (TER)	87.35	13,605	12,852	3,308	1,053	3.36	3.88x	12.2x	26.0x	59.7%	31.8%
Veeco Instruments Inc. (VECO)	18.58	955	994	645	92	0.53	1.54x	10.8x	35.1x	40.9%	14.2%
<b>Mean</b>		<b>\$66,902</b>	<b>\$67,346</b>	<b>\$13,366</b>	<b>\$4,519</b>	<b>\$11.40</b>	<b>3.38x</b>	<b>10.7x</b>	<b>22.4x</b>	<b>50.0%</b>	<b>31.6%</b>
<b>Median</b>		<b>53,432</b>	<b>56,902</b>	<b>15,580</b>	<b>4,939</b>	<b>9.62</b>	<b>3.18x</b>	<b>10.6x</b>	<b>20.8x</b>	<b>46.5%</b>	<b>32.1%</b>

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

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close December 30, 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, 2022 excluding DHR (December 31, 2022); DE & AMAT (October 30, 2022); TER & ASML (October 02, 2022); ENTG & ONTO (October 01, 2022); LRCX (september 25, 2022); COHU & FORM (September 24, 2022) and SU & XCRA (June 30, 2022).

(4) Excludes non-recurring and discontinued operations.

# Selected M&A Transactions

## Industrial Equipment

Announced	Target	Target Description	Acquirer	Value
Dec 01	SiteScape	Designs and develops iOS LiDAR app for construction professionals.	FARO Technologie, Inc. (NasdaqGS: LRCX)	ND
Nov 30	Esgee Technologies Inc.	Develops and offers software for modeling and simulation of plasmas and reactive flow systems.	Lam Research Corporation. (NasdaqGS: LRCX)	ND
Nov 15	Hinowa SPA	Manufactures and markets tracked aerial platforms, mini excavators, mini dumpers, and undercarriages.	Oshkosh Corporation. (NYSE: OSK)	ND
Nov 15	SEMSYSCO Semiconductor Systems Corporation GmbH.	Designs and manufactures wet process equipment for semiconductor and related industries.	Lam Research Corporation. (NasdaqGS: LRCX)	ND
Nov 01	Navitar, Inc.	Designs, develops, and manufactures opto-mechanical and opto-electronic assembly and sub-assembly systems for clients and enterprises.	AMETEK, Inc. (NYSE: AME)	\$190.0
Nov 01	RTDS Technologies, Inc.	Engages in the development, support, and commercialization of real time digital power system simulators for utilities, equipment manufacturers, and research institutes in Canada and internationally.	AMETEK, Inc. (NYSE: AME)	\$238.0
Oct 31	Eurotherm Limited business from Schneider Electric S.E. (ENXTPA: SU)	Designs and manufactures configurable precision machines, process and power controllers, and associated data recorders for industrial automation.	Watlow Electric Manufacturing Company.	ND

ND – Not disclosed. Transaction values in millions.

# Selected M&A Transactions

## Industrial Equipment

Announced	Target	Target Description	Acquirer	Value
Oct 31	CUBIC-Modulsystems A/S.	Manufactures electromechanical systems for industrial, mining, and airport applications..	Rockwell Automation, Inc. (NYSE: ROK)	\$130.0
Oct 31	InSinkErator, Inc business from Emerson Electric Co. (NYSE: EMR)	Offers cloud native toolset for developing, deploying, operating, and servicing mission-critical intelligent systems.	Whirlpool Corporation. (NYSE: WHR)	\$3,000.0
Oct 27	Altra Industrial Motion Corp. (NasdaqGS: AIMC)	Designs, produces, and markets a range of electromechanical power transmission motion control products for use in various motion-related applications, and high-volume manufacturing and non-manufacturing processes.	Regal Rexnord Corporation (NYSE: RRX).	\$4,100.0
Oct 11	Pipeline and Industrial material business from Entegris, Inc. (NasdaqGS: ENTG)	Comprises Flowchem, Val-Tex, and Sealweld specialty chemical brands; and a range of drag reducing agents (DRAs) for pipeline operations.	Infineum USA L.P.	\$240.0
Oct 03	B Medical Systems S.a.R.L from Navis Capital Partners.	Engages in research, development, manufacture, and sale of professional refrigerators, freezers, storage, and solutions, such as vaccine refrigerators.	Azenta, Inc. (NasdaqGS: AZTA)	\$500.0

ND – Not disclosed. Transaction values in millions.

# Selected News

## Industrial Equipment

**Applied Materials, Inc. (NasdaqGS: AMAT)** reported net income of \$6,525.0 million for fiscal year 2022 as compared to \$5,888.0 million for the prior year. Earnings per share were \$7.44 versus \$6.40 for the prior year. Revenues for the year increased to \$25,785.0 million from \$23,063.0 million for fiscal year 2021.

**Applied Materials, Inc. (NasdaqGS: AMAT)** appointed **Kevin March** to its **Board of Directors**.

**Deere & Company (NYSE:DE)** reported net income of \$7,131.0 million for fiscal year 2022 as compared to \$5,963.0 million for the prior year. Earnings per share were \$23.28 versus \$18.99 for the prior year. Revenues for the year increased to \$52,563.0 million from \$43,983.0 million for fiscal year 2021.

**Entegris, Inc. (NasdaqGS: ENTG)** reported third quarter net income of (\$73.7) million for fiscal year 2022 as compared to \$117.5 million for the prior year period. Earnings per share were (\$0.50) versus \$0.86 for the prior year period. Revenues for the quarter increased to \$993.8 million from \$579.5 million for the same period in fiscal year 2021.

**Kateeva, Inc.** appointed **Bin Liu** as **Chief Executive Officer**.

**KLA Corporation (NasdaqGS: KLAC)** appointed **Robert Calderoni** as **Chairman of the Board of Directors**.

**RBC Bearings Incorporated (NYSE:RBC)** reported second quarter net income of \$43.8 million for fiscal year 2023 as compared to (\$1.4) million for the prior year period. Earnings per share were \$1.31 versus (\$0.07) for the prior year period. Revenues for the quarter increased to \$369.2 million from \$160.9 million for the same period in fiscal year 2022.

**Regal Rexnord Corporation (NYSE: RRX)** appointed **Michael Doss** to its **Board of Directors**.

**Rockwell Automation, Inc. (NYSE:ROK)** reported first quarter net income of \$384.0 million for fiscal year 2023 as compared to \$241.5 million for the prior year period. Earnings per share were \$3.33 versus \$2.05 for the prior year period. Revenues for the quarter increased to \$1,981.0 million from \$1,857.3 million for the same period in fiscal year 2022.

**Teradyne, Inc. (NasdaqGS: TER)** appointed **Ernest Maddock** to its **Board of Directors**.

**Veeco Instruments Inc. (NasdaqGS:VECO)** appointed **Lena Nicolaidis** to its **Board of Directors**.

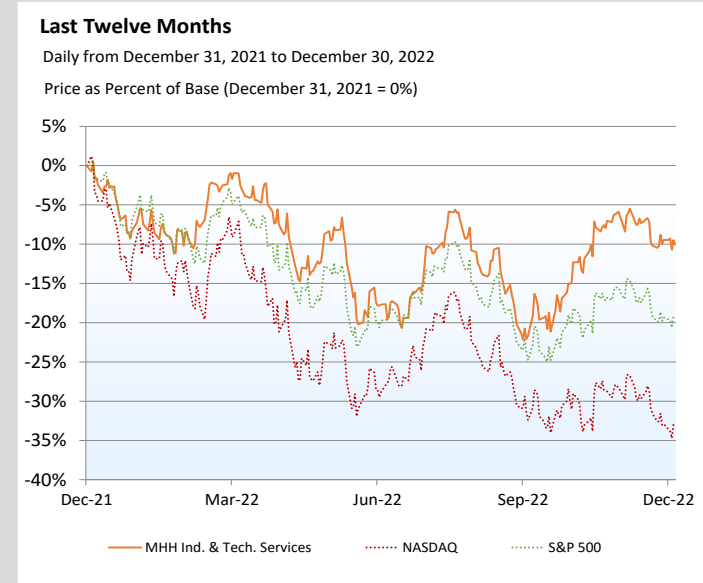
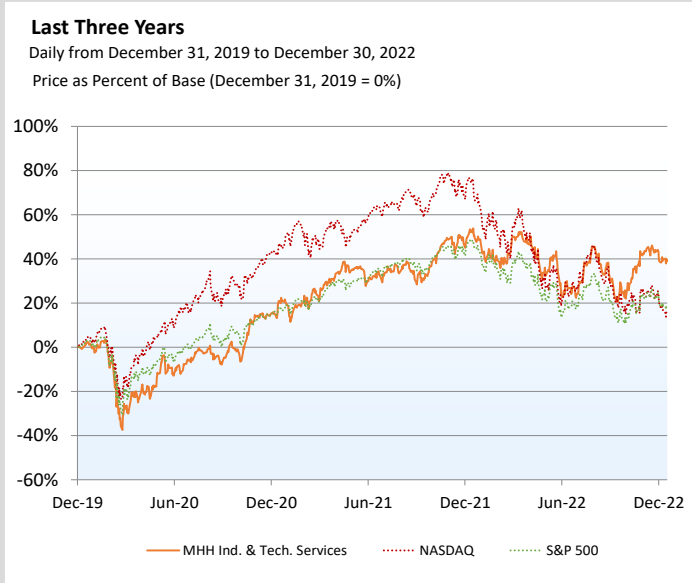
*Note: All per share results are reported on a fully-diluted basis.*

# Comparative Index Performance

## Industrial & Technical Services

### Comparative Index <sup>(a)</sup> Performance

The MHH Industrial & Technical Services index <sup>(a)</sup> increased by 11.2% during the three months ending December 30, 2022.



#### Index Price Performance

MHH Industrial & Technical Services <sup>(a)</sup>

**3-Year**

**LTM**

**3-Month**

NASDAQ

16.7%

-33.1%

-3.2%

S&P 500

18.8%

-19.4%

4.4%

(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.



# Selected Valuation Metrics

## Industrial & Technical Services

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

Company	Market & Capitalization			LTM Performance <sup>(3)</sup>			Valuation		Margins		
	Price <sup>(1)</sup>	Equity Value	Enterprise Value <sup>(2)</sup>	Revenue	EBITDA <sup>(4)</sup>	EPS	Enterprise Value/ Revenue	Price/ EBITDA	Price/ EPS	Gross Profit	EBITDA
<b>Industrial Distribution</b>											
W.W. Grainger, Inc. (GWW)	\$556.25	\$28,107	\$30,763	\$14,785	\$2,317	\$23.22	2.08x	13.3x	24.0x	37.8%	15.7%
Fastenal Company (FAST)	47.32	27,103	27,680	6,817	1,597	1.53	4.06x	17.3x	31.0x	46.4%	23.4%
WESCO International, Inc. (WCC)	125.20	6,366	11,844	20,714	1,537	13.06	0.57x	7.7x	9.6x	21.5%	7.4%
MSC Industrial Direct Co., Inc. (MSM)	81.70	4,565	5,394	3,801	569	5.29	1.42x	9.5x	15.4x	42.2%	15.0%
MRC Global Inc. (MRC)	11.58	968	1,846	3,180	147	0.56	0.58x	12.6x	20.8x	17.6%	4.6%
Transcat, Inc. (TRNS)	70.87	536	598	218	26	1.10	2.75x	23.5x	NM	29.0%	11.7%
<b>Mean</b>		<b>\$11,274</b>	<b>\$13,021</b>	<b>\$8,252</b>	<b>\$1,032</b>	<b>\$7.46</b>	<b>1.91x</b>	<b>14.0x</b>	<b>20.2x</b>	<b>32.4%</b>	<b>13.0%</b>
<b>Median</b>		<b>5,465</b>	<b>8,619</b>	<b>5,309</b>	<b>1,053</b>	<b>3.41</b>	<b>1.75x</b>	<b>12.9x</b>	<b>20.8x</b>	<b>33.4%</b>	<b>13.3%</b>
<b>Industrial Recycling</b>											
Veolia Environnement S.A. (ENXTPA:VIE)	\$25.65	\$18,006	\$44,392	\$36,649	\$3,784	\$0.90	1.21x	11.7x	28.6x	16.4%	10.3%
Clean Harbors, Inc. (CLH)	114.12	6,171	8,425	5,008	915	5.42	1.68x	9.2x	21.1x	31.0%	18.3%
Commercial Metals Company (CMC)	48.30	5,668	6,641	9,159	1,584	6.93	0.73x	4.2x	7.0x	21.5%	17.3%
Dowa Holdings Co., Ltd. (TSE:5714)	31.47	1,873	2,705	5,601	549	4.17	0.48x	4.9x	7.5x	12.4%	9.8%
Aurubis AG (XTRA:NDA)	81.61	3,555	3,087	18,187	1,026	12.09	0.17x	3.0x	6.7x	9.7%	5.6%
Sims Limited (ASX:SGM)	8.90	1,673	1,968	6,392	353	1.46	0.31x	5.6x	6.1x	12.4%	5.5%
<b>Mean</b>		<b>\$6,158</b>	<b>\$11,203</b>	<b>\$13,499</b>	<b>\$1,369</b>	<b>\$5.16</b>	<b>0.76x</b>	<b>6.4x</b>	<b>12.8x</b>	<b>17.2%</b>	<b>11.1%</b>
<b>Median</b>		<b>4,612</b>	<b>4,864</b>	<b>7,775</b>	<b>970</b>	<b>4.79</b>	<b>0.60x</b>	<b>5.2x</b>	<b>7.3x</b>	<b>14.4%</b>	<b>10.1%</b>
<b>Technical Services</b>											
Jacobs Solutions Inc. (J)	\$120.07	\$15,202	\$18,904	\$14,923	\$1,311	\$3.96	1.27x	14.4x	30.4x	22.3%	8.8%
AECOM (ACM)	84.93	11,776	13,678	13,148	872	2.70	1.04x	15.7x	31.4x	6.4%	6.6%
KBR, Inc. (KBR)	52.80	7,244	8,751	7,455	527	0.95	1.17x	16.6x	NM	11.5%	7.1%
Tetra Tech, Inc. (TTEK)	145.19	7,692	7,980	2,836	368	4.03	2.81x	21.7x	36.0x	20.3%	13.0%
John Wood Group PLC (LSE:WG.)	1.63	1,103	3,193	6,384	227	0.01	0.50x	14.1x	NM	11.7%	3.5%
Fluor Corporation (FLR)	34.66	4,925	3,754	11,935	220	0.82	0.31x	17.1x	NM	2.8%	1.8%
NV5 Global, Inc. (NVEE)	132.32	2,059	2,126	786	125	3.15	2.71x	17.0x	NM	49.7%	15.9%
Balfour Beatty plc (LSE:BBY)	4.07	2,376	1,948	8,633	76	0.09	0.23x	25.7x	NM	3.8%	0.9%
Primoris Services Corporation (PRIM)	21.94	1,165	2,417	3,976	247	1.45	0.61x	9.8x	15.1x	10.0%	6.2%
<b>Mean</b>		<b>\$5,949</b>	<b>\$6,972</b>	<b>\$7,786</b>	<b>\$441</b>	<b>\$1.91</b>	<b>1.18x</b>	<b>16.9x</b>	<b>28.2x</b>	<b>15.4%</b>	<b>7.1%</b>
<b>Median</b>		<b>4,925</b>	<b>3,754</b>	<b>7,455</b>	<b>247</b>	<b>1.45</b>	<b>1.04x</b>	<b>16.6x</b>	<b>30.9x</b>	<b>11.5%</b>	<b>6.6%</b>

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

‡ = excluded from Mean and Median calculations

Source: CapitalIQ

(1) As of close December 30, 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 September 30, 2022 excluding FAST (December 31, 2022); MSM (December 03, 2022); CMC (November 30, 2022); TTEK (October 02, 2022); NVEE (October 01, 2022); TRNS (September 24, 2022); BBY (July 07, 2022); SGM, VIE & WG (June 30, 2022).

(4) Excludes non-recurring and discontinued operations.

(5) Excluding Cardno Limited (ASX:CDD) due to continuous negative Enterprise Value.

Source: S&P Capital IQ

# Selected M&A Transactions

## Industrial & Technical Services

Announced	Target	Target Description	Acquirer	Value
Nov 30	European Mobile Water Services business from Veolia Environnement S.A. (ENXTPA:VIE).	Comprises mobile water services business.	Saur SAS.	ND
Nov 30	Hazardous Waste Management business from Veolia Environnement S.A. (ENXTPA: VIE)	Engages in research, development, manufacture, and sale of professional refrigerators, freezers, storage, and solutions, such as vaccine refrigerators.	SUEZ Group SA.	\$731.0

ND – Not disclosed. Transaction values in millions.

# Selected News

## Industrial & Technical Services

**AECOM (NYSE:ACM)** reported net income of \$310.6 million for fiscal year 2022 as compared to \$173.2 million for the prior year. Earnings per share were \$2.18 versus \$1.16 for the prior year. Revenues for the year decreased to \$13,148.2 million from \$13,340.9 million for fiscal year 2021.

**Aurubis AG (XTRA:NDA)** reported net income of \$700.8 million for fiscal year 2022 as compared to \$710.2 million for the prior year. Earnings per share were \$16.05 versus \$16.26 for the prior year. Revenues for the year decreased to \$18,187.5 million from \$18,928.8 million for fiscal year 2021.

**Clean Harbors, Inc. (NYSE:CLH)** reported third quarter net income of \$135.8 million for fiscal year 2022 as compared to \$65.4 million for the prior year period. Earnings per share were \$2.50 versus \$1.20 for the prior year period. Revenues for the quarter increased to \$1,363.1 million from \$951.5 million for the same period in fiscal year 2021.

**Clean Harbors, Inc. (NYSE:CLH)** appointed **Alan McKim** to its **Board of Directors**.

**Cohu, Inc. (NasdaqGS: COHU)** appointed **Andreas Mattes** to its **Board of Directors**.

**Dowa Holdings Co., Ltd. (TSE:5714)** reported second quarter net income of \$66.9 million for fiscal year 2023 as compared to \$113.4 million for the prior year period. Earnings per share were \$1.12 versus \$1.91 for the prior year period. Revenues for the quarter decreased to \$1,326.3 million from \$1,930.6 million for the same period in fiscal year 2022.

**Fluor Corporation (NYSE:FLR)** reported third quarter net income of \$22.0 million for fiscal year 2022 as compared to \$41.0 million for the prior year period. Earnings per share were \$0.08 versus \$0.21 for the prior year period. Revenues for the quarter increased to \$3,612.0 million from \$3,503.0 million for the same period in fiscal year 2021.

**Jacobs Solutions Inc. (NYSE:J)** reported net income of \$644.0 million for fiscal year 2022 as compared to \$477.0 million for the prior year. Earnings per share were \$4.98 versus \$3.20 for the prior year. Revenues for the year increased to \$14,922.8 million from \$14,092.6 million for fiscal year 2021.

**KBR, Inc. (NYSE:KBR)** reported third quarter net income of \$74.0 million for fiscal year 2022 as compared to \$57.0 million for the prior year period. Earnings per share were \$0.49 versus \$0.38 for the prior year period. Revenues for the quarter decreased to \$1,626.0 million from \$1,843.0 million for the same period in fiscal year 2021.

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

## Selected News (cont'd)

### *Industrial & Technical Services*

**MRC Global Inc. (NYSE:MRC)** reported third quarter net income of \$24.0 million for fiscal year 2022 as compared to (\$11.0) million for the prior year period. Earnings per share were \$0.21 versus (\$0.21) for the prior year period. Revenues for the quarter increased to \$904.0 million from \$685.0 million for the same period in fiscal year 2021.

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**Primoris Services Corporation (NasdaqGS: PRIM)** reported third quarter net income of \$43.0 million for fiscal year 2022 as compared to \$44.1 million for the prior year period. Earnings per share were \$0.80 versus \$0.81 for the prior year period. Revenues for the quarter increased to \$1,284.1 million from \$913.2 million for the same period in fiscal year 2021.

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**Tetra Tech, Inc. (NasdaqGS: TTEK)** reported net income of \$263.1 million for fiscal year 2022 as compared to \$232.8 million for the prior year. Earnings per share were \$4.86 versus \$4.26 for the prior year. Revenues for the year increased to \$2,835.6 million from \$2,552.2 million for fiscal year 2021.

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**Transcat, Inc. (NasdaqGM: TRNS)** reported second quarter net income of \$2.4 million for fiscal year 2023 as compared to \$3.0 million for the prior year period. Earnings per share were \$0.31 versus \$0.40 for the prior year period. Revenues for the quarter increased to \$56.4 million from \$50.4 million for the same period in fiscal year 2022.

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**Veolia Environnement S.A. (ENXTPA:VIE)** reported second quarter net income of \$123.4 million for fiscal year 2022 as compared to (\$0.0) million for the prior year period. Earnings per share were \$0.18 versus (\$0.00) for the prior year period. Revenues for the quarter increased to \$10,555.9 million from \$0.0 million for the same period in fiscal year 2021.

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**W.W. Grainger, Inc. (NYSE:GWW)** reported third quarter net income of \$426.0 million for fiscal year 2022 as compared to \$297.0 million for the prior year period. Earnings per share were \$8.27 versus \$5.65 for the prior year period. Revenues for the quarter increased to \$3,942.0 million from \$3,372.0 million for the same period in fiscal year 2021.

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**WESCO International, Inc. (NYSE:WCC)** reported third quarter net income of \$239.6 million for fiscal year 2022 as compared to \$119.6 million for the prior year period. Earnings per share were \$4.30 versus \$2.02 for the prior year period. Revenues for the quarter increased to \$5,445.9 million from \$4,728.3 million for the same period in fiscal year 2021.

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

# MHH Manufacturing Universe Directory

## Manufacturing Update

Company	Sector
<b>3M Company</b>	Components & Materials
<b>AECOM</b>	Ind. & Tech. Services
<b>Airbus Group SE</b>	Aerospace & Defense
<b>Akzo Nobel N.V.</b>	Components & Materials
<b>Alps Electric Co. Ltd.</b>	Components & Materials
<b>AMETEK, Inc.</b>	Industrial Equipment
<b>Amphenol Corporation</b>	Components & Materials
<b>Applied Materials, Inc.</b>	Industrial Equipment
<b>Aptiv PLC</b>	Components & Materials
<b>ASML Holding N.V.</b>	Industrial Equipment
<b>Aurubis AG</b>	Ind. & Tech. Services
<b>Autoliv, Inc.</b>	Components & Materials
<b>Axcelis Technologies, Inc.</b>	Industrial Equipment
<b>Azenta, Inc.</b>	Industrial Equipment
<b>BAE Systems plc</b>	Aerospace & Defense
<b>Balfour Beatty plc</b>	Ind. & Tech. Services
<b>BASF SE</b>	Components & Materials
<b>Belden Inc.</b>	Components & Materials
<b>Bosch Ltd</b>	Components & Materials
<b>Cardno Ltd.</b>	Ind. & Tech. Services
<b>Caterpillar Inc.</b>	Industrial Equipment
<b>Celanese Corporation</b>	Components & Materials
<b>Clean Harbors, Inc.</b>	Ind. & Tech. Services
<b>Cohu, Inc.</b>	Industrial Equipment
<b>Commercial Metals Company</b>	Ind. & Tech. Services
<b>Continental Aktiengesellschaft</b>	Components & Materials
<b>Corning Inc.</b>	Components & Materials
<b>Cummins Inc.</b>	Industrial Equipment
<b>Danaher Corporation</b>	Industrial Equipment
<b>Deere &amp; Company</b>	Industrial Equipment
<b>Delphi Automotive PLC</b>	Components & Materials
<b>DENSO Corporation</b>	Components & Materials
<b>Dowa Holdings Co., Ltd.</b>	Ind. & Tech. Services

Company	Sector
<b>Dow Inc.</b>	Components & Materials
<b>DuPont de Nemours, Inc.</b>	Components & Materials
<b>Eaton Corporation plc</b>	Industrial Equipment
<b>Embraer S.A.</b>	Aerospace & Defense
<b>Emerson Electric Co.</b>	Industrial Equipment
<b>Encore Wire Corp.</b>	Components & Materials
<b>Entegris, Inc.</b>	Industrial Equipment
<b>Evonik Industries AG</b>	Components & Materials
<b>FARO Technologies, Inc.</b>	Industrial Equipment
<b>Fastenal Company</b>	Ind. & Tech. Services
<b>Fluor Corporation</b>	Ind. & Tech. Services
<b>FormFactor, Inc.</b>	Industrial Equipment
<b>General Dynamics Corporation</b>	Aerospace & Defense
<b>HD Supply Holdings, Inc.</b>	Ind. & Tech. Services
<b>Honeywell International Inc.</b>	Aerospace & Defense
<b>Hubbell Incorporated</b>	Industrial Equipment
<b>Huntington Ingalls Industries, Inc</b>	Aerospace & Defense
<b>Jacobs Engineering Group Inc.</b>	Ind. & Tech. Services
<b>John Wood Group plc</b>	Ind. & Tech. Services
<b>Johnson Controls Inc.</b>	Components & Materials
<b>KBR, Inc.</b>	Ind. & Tech. Services
<b>KLA-Tencor Corporation</b>	Industrial Equipment
<b>Korea Shipbuilding Co. Ltd.</b>	Industrial Equipment
<b>L3Harris Technologies</b>	Aerospace & Defense
<b>Lam Research Corporation</b>	Industrial Equipment
<b>Lawson Products, Inc.</b>	Ind. & Tech. Services
<b>Lear Corp.</b>	Components & Materials
<b>Lockheed Martin Corporation</b>	Aerospace & Defense
<b>MKS Instruments, Inc.</b>	Industrial Equipment
<b>MRC Global Inc.</b>	Ind. & Tech. Services
<b>MSC Industrial Direct Co., Inc.</b>	Ind. & Tech. Services
<b>Nanometrics Incorporated</b>	Industrial Equipment
<b>Northrop Grumman Corporation</b>	Aerospace & Defense

Company	Sector
<b>Nova Measuring Instruments Ltd.</b>	Industrial Equipment
<b>NV5 Global, Inc.</b>	Ind. & Tech. Services
<b>OMRON Corporation</b>	Components & Materials
<b>Onto Innovation Inc.</b>	Industrial Equipment
<b>Oshkosh Corporation</b>	Industrial Equipment
<b>Powell Industries, Inc.</b>	Industrial Equipment
<b>PPG Industries, Inc.</b>	Components & Materials
<b>Primoris Services Corporation</b>	Ind. & Tech. Services
<b>Raytheon Technologies Corporation</b>	Aerospace & Defense
<b>Regal Rexnord Corporation</b>	Industrial Equipment
<b>Rockwell Automation Inc.</b>	Industrial Equipment
<b>Rolls Royce Holdings plc</b>	Aerospace & Defense
<b>Schneider Electric S.E.</b>	Industrial Equipment
<b>Sims Metal Management Limited</b>	Ind. & Tech. Services
<b>Solvay SA</b>	Components & Materials
<b>Stanley Electric Co. Ltd.</b>	Components & Materials
<b>TE Connectivity Ltd.</b>	Components & Materials
<b>Teradyne, Inc.</b>	Industrial Equipment
<b>Terex Corporation</b>	Industrial Equipment
<b>Tetra Tech, Inc.</b>	Ind. & Tech. Services
<b>Textron Inc.</b>	Aerospace & Defense
<b>Thales SA</b>	Aerospace & Defense
<b>The Boeing Company</b>	Aerospace & Defense
<b>Tokyo Electron Limited</b>	Industrial Equipment
<b>Transcat, Inc.</b>	Ind. & Tech. Services
<b>Veeco Instruments Inc.</b>	Industrial Equipment
<b>Veolia Environnement S.A.</b>	Ind. & Tech. Services
<b>Vishay Intertechnology Inc.</b>	Components & Materials
<b>W.W. Grainger, Inc.</b>	Ind. & Tech. Services
<b>WESCO International, Inc.</b>	Ind. & Tech. Services
<b>Xcerra Corporation</b>	Industrial Equipment

**Mufson Howe Hunter & Co.** is an independent investment bank for middle-market companies. We focus on mergers and acquisitions, recapitalizations, and raising capital.

### **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

Broker dealer services provided by our wholly-owned subsidiary

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## Contact us

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