

THE



SAFETY

COMPANY

Q4 and Full Year 2023 Earnings Presentation

February 15, 2024

Cautionary Statements Regarding Forward-looking Statements



This presentation may contain (and verbal statements made by MSA® Safety Incorporated (“MSA Safety”) may contain) “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements relate to future events or our future financial performance and involve various assumptions, known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks and other factors include, but are not limited to, statements in this presentation regarding our expectations of future results, performance or financial condition we express or imply in any forward-looking statements. In some cases, you can identify forward-looking statements by words such as “may,” “will,” “should,” “expects,” “intends,” “plans,” “objectives,” “anticipates,” “believes,” “estimates,” “predicts,” “potential” or other comparable words. Actual results, performance or outcomes may differ materially from those expressed or implied by these forward-looking statements and may not align with historical performance and events due to a number of factors, including those discussed in the sections of our annual report on Form 10-K entitled “Cautionary Statement Regarding Forward-Looking Statements” and “Risk Factors,” and those discussed in our Form 10-Q quarterly reports filed after such annual report. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements, and caution should be exercised against placing undue reliance upon such statements, which are based only on information currently available to us and speak only as of the date hereof. We are under no duty to update publicly any of the forward-looking statements after the date of this presentation, whether as a result of new information, future events or otherwise, except as required by law.

Non-GAAP Financials



To supplement our Consolidated Financial Statements presented in accordance with generally accepted accounting principles (“GAAP”), we use, and this presentation includes, certain non-GAAP financial measures. These financial measures include constant currency revenue growth, adjusted operating income (loss), adjusted operating margin, adjusted EBITDA, adjusted EBITDA margin, adjusted earnings, adjusted earnings per diluted share, R&D investment, net debt, debt to adjusted EBITDA, net debt to adjusted EBITDA, adjusted payments on debt, free cash flow and free cash flow conversion. These non-GAAP financial measures provide information useful to investors in understanding our operating performance and trends, and to facilitate comparisons with the performance of our peers. Management also uses these measures internally to assess and better understand our underlying business performance and trends related to core business activities. The non-GAAP financial measures and key performance indicators we use, and computational methods with respect thereto, may differ from the non-GAAP financial measures and key performance indicators, and computational methods, that our peers use to assess their performance and trends.

The presentation of these non-GAAP financial measures does not comply with U.S. GAAP. These non-GAAP financial measures should be viewed as supplemental in nature, and not as a substitute for, or superior to, our reported results prepared in accordance with GAAP. When non-GAAP financial measures are disclosed, the Securities and Exchange Commission's Regulation G requires: (i) the presentation of the most directly comparable financial measure calculated and presented in accordance with GAAP and (ii) a reconciliation of the differences between the non-GAAP financial measure presented and the most directly comparable financial measure calculated and presented in accordance with GAAP. For an explanation of these measures, together with a reconciliation to the most directly comparable GAAP financial measure, see the appendix of this presentation.

MSA Safety (NYSE: MSA) Snapshot



Leading Global Safety Technology Company with Proven Track Record of Value Creation

DRIVEN BY OUR PURPOSE

Our Mission

- That men and women may work in safety and that they, their families, and their communities may live in health throughout the world

Our Vision

- To be the world's leading provider of safety solutions that protect workers when life is on the line
- We pursue this vision with an unsurpassed commitment to integrity, customer service, and product innovation that creates exceptional value for all MSA stakeholders

Our Values

- Embracing change and encouraging innovation in a culture of safety



KEY STATISTICS⁽¹⁾

\$1.8B Net Sales	47.7% Gross Margin
22.2% Adj. Operating Margin	4.5% R&D Investment ⁽²⁾
40+ Million Workers Protected ⁽³⁾	50+ Consecutive Years of Dividend Increases
1914 Year Founded	~5,100 Employees

FOREFRONT OF SAFETY INNOVATION

- 1** Steady end market demand, with resilient organic growth and extensive installed base
- +**
- 2** Innovation and new customer solutions augmented by disciplined and highly strategic inorganic growth
- ∨**
- 3** Solidifying status as the leading safety technology company for Firefighter Safety, Detection and Industrial PPE

(1) Key metrics for the trailing 12-month period ended December 31, 2023.

(2) % net sales; includes capitalized software development costs. See appendix for definitions of non-GAAP measures and non-GAAP reconciliations.

(3) As of December 31, 2023. "Workers Protected" is an estimate based on internal data, third-party and internal market research, product expert opinions and certain assumptions, and is subject to change.

Purpose-Led Company Driven by Our Mission of Safety



Generating Sustainable Growth and Impact

OUR IMPACT PILLARS



OUR PRODUCTS & SOLUTIONS

- Be the leader in safety technologies
- Invent, innovate, and develop next generation solutions
- Make work safer, easier, and more productive for people around the world



OUR PEOPLE

- Start with safety and foster a diverse and inclusive workforce
- Encourage personal and professional growth, global collaboration, innovation, and better business outcomes



OUR PLANET

- Conduct our business in a manner that is environmentally sustainable
- Ensure protection of our natural resources

PROTECTING THE WORLD'S WORKERS AND WORKPLACES WITH OUR INNOVATIVE PRODUCTS AND SOLUTIONS



(1) As of December 31, 2023. "Workers Protected" is an estimate based on internal data, third-party and internal market research, product expert opinions and certain assumptions, and is subject to change.

Evolution Into a Higher Growth, Higher Returns Company



Taking Deliberate Actions to Better Serve Our Customers and Advance Our Mission

ORGANIC TRANSFORMATION

Innovation	Commercial	Operational
<ul style="list-style-type: none"> Grew electrical and software engineering talent Accelerated connected hardware and software platform development Launched MSA+™ subscription and other new products and technologies Introduced Agile Concepts and sustainability principles in development process 	<ul style="list-style-type: none"> Evolved go-to-market strategy Focused on improving customer experience and ease-of-doing business with MSA Streamlined channels and SKU complexity Deployed Salesforce globally 	<ul style="list-style-type: none"> Implemented MSA Business System (MBS) to drive competitive advantages, improve productivity, and deliver durable results Worked on optimizing footprint to better serve customers and enhance margins Drove process improvements in margin expansion Established regional GBS centers to enhance ability to serve customers

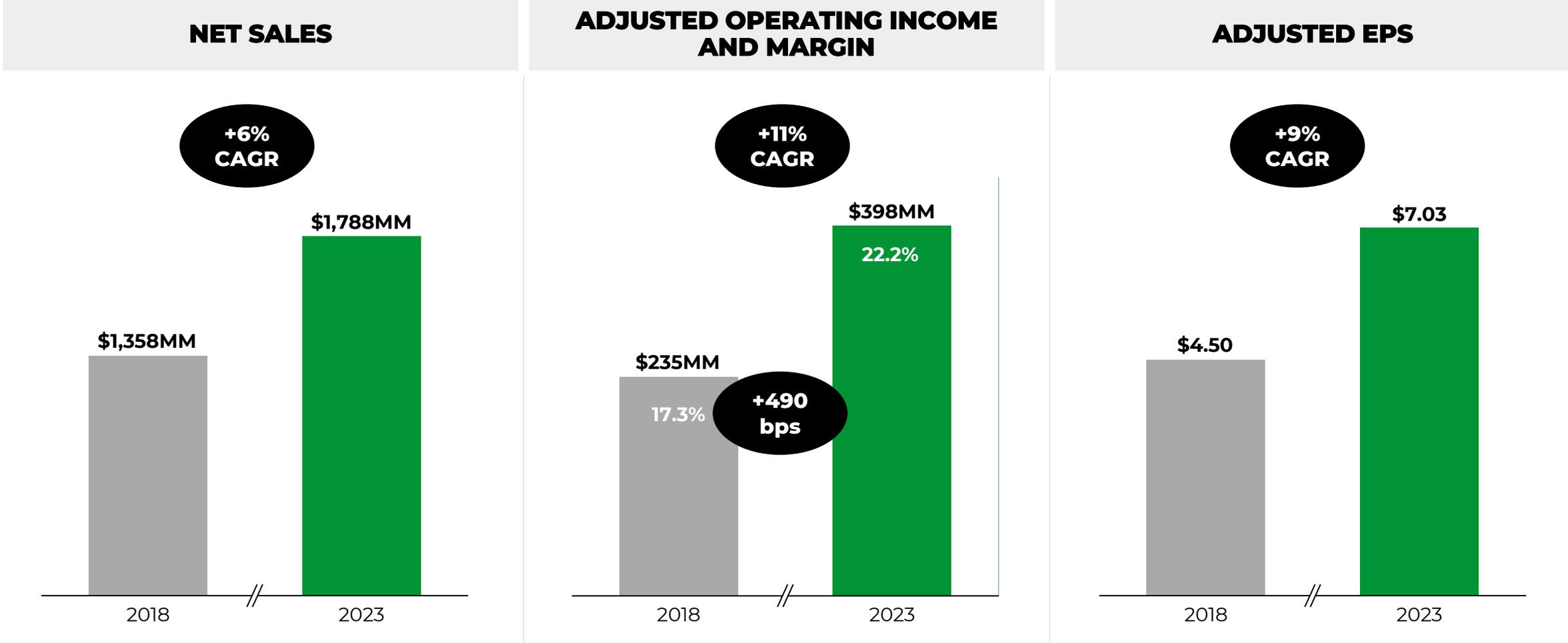
EXPANDED TAM THROUGH M&A

	<ul style="list-style-type: none"> Leading provider of HVAC-R instrumentation Expanded detection portfolio in attractive end markets
	<ul style="list-style-type: none"> Niche provider of detection and connected instrumentation Expanded connected technologies portfolio and customer reach
	<ul style="list-style-type: none"> UK leader in firefighter protective apparel Enhanced head-to-toe firefighter safety solutions and expanded presence in UK market

Strong Track Record of Value Creation



Robust Growth and Margin Enhancement Delivered Powerful Earnings Growth



See appendix for definitions of non-GAAP measures and non-GAAP reconciliations. "CAGR" stands for compound annual growth rate.

2023 Highlights

Continued Execution of Our Strategy Has Transformed Our Business

KEY HIGHLIGHTS

New Product Development and Execution

- Continued to drive growth through innovation, with solutions developed alongside customers
- Rapidly addressed supply chain issues with redesign efforts and revitalized certain products
- Expanded ALTAIR io™ 4 markets and launched Sentry io® controller, M8 SCBA, among others



Commercial Achievements Across Portfolio

- Awarded \$35MM respiratory protection contract with U.S. Air Force
- Secured \$25MM refrigerant monitoring contract with U.S. Navy
- Grew share in fall protection; secured head protection order with a leading technology company



Operational Excellence

- Bolstered leadership team to support next phase of growth; part of robust talent development process
- Enhanced processes to enhance fill rates, reduce backlog, and improve working capital
- Opened new Morocco manufacturing facility aligned with strategy to meet growing regional demand



(1) % of sales from products developed and launched in past five years.

Fourth Quarter and Full Year 2023 Performance



Broad-Based Strength Across Our Global Business

KEY METRICS ⁽¹⁾	Q4	FY
Revenue	\$495MM +12%	\$1.8B +17%
Adj. Operating Income	\$115MM +20%	\$398MM +37%
Adj. Operating Margin	23.3% +170 bps	22.2% +320 bps
Adj. EPS	\$2.06 +14%	\$7.03 +24%
Free Cash Flow	\$147MM +270%	\$397MM +245%
Free Cash Flow Conversion ⁽²⁾	180%	143%

PERFORMANCE HIGHLIGHTS

- Strong execution supported by MSA Business System (MBS)
- Double-digit sales growth balanced across product categories, geographies and price/volume
- Enhanced margin profile while investing in innovative safety products and solutions to position MSA for future growth
- Continued robust cash flow and strong financial position enables multiple capital deployment options
- Capitalizing on secular tailwinds in safety industry with marquee wins and strong pipeline

(1) Comparisons are year-over-year unless otherwise noted.

(2) Free cash flow conversion (FCF) refers to the ratio of free cash flow to adjusted earnings.

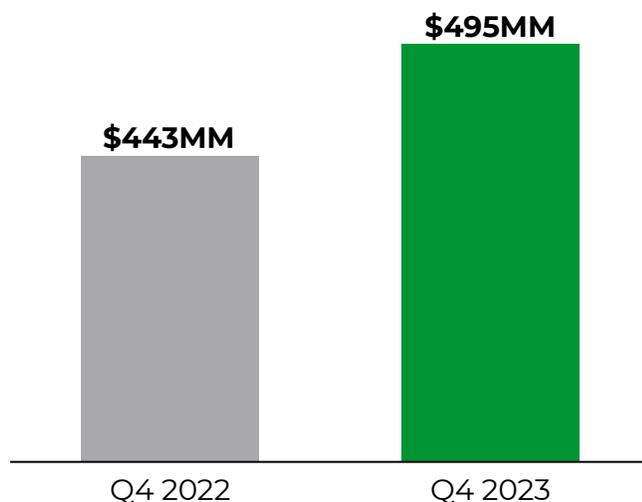
See appendix for definitions of non-GAAP measures and non-GAAP reconciliations.

Q4 2023 Financial Summary



Strong Financial Results in Fourth Quarter to Conclude an Exceptional Year

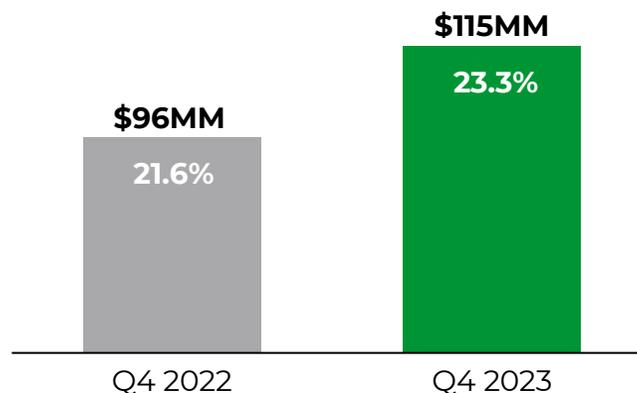
NET SALES



NET SALES GROWTH OF 12%

- +10% organic and +2% currency
- Growth across product categories and reportable segments
- Healthy contribution from pricing and volume

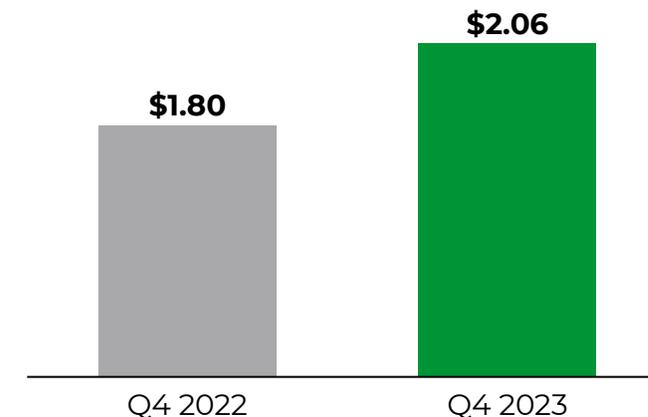
ADJUSTED OPERATING INCOME AND MARGIN



ADJUSTED OPERATING MARGIN OF 23.3%

- Volume leverage, price/cost management, and operations productivity drove 170 bps margin expansion
- Incremental margin of 37%
- Adjusted EBITDA margin of 26.0%, up 160 bps year-over-year

ADJUSTED EPS



ADJUSTED EPS GROWTH OF 14%

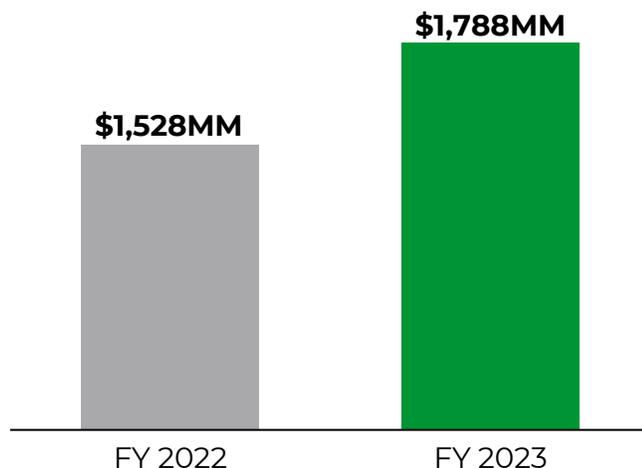
- Higher operating profit drove growth, partially offset by adjusted tax rate and interest expense

Full Year 2023 Financial Summary



Robust Execution Delivered Double-Digit Growth with Significant Margin Expansion

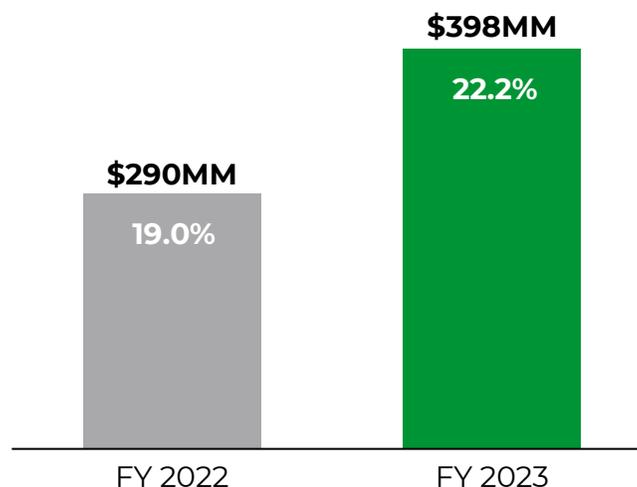
NET SALES



NET SALES GROWTH OF 17%

- +16% organic and +1% currency
- Growth balanced across product categories and reportable segments
- Healthy contribution from pricing and volume

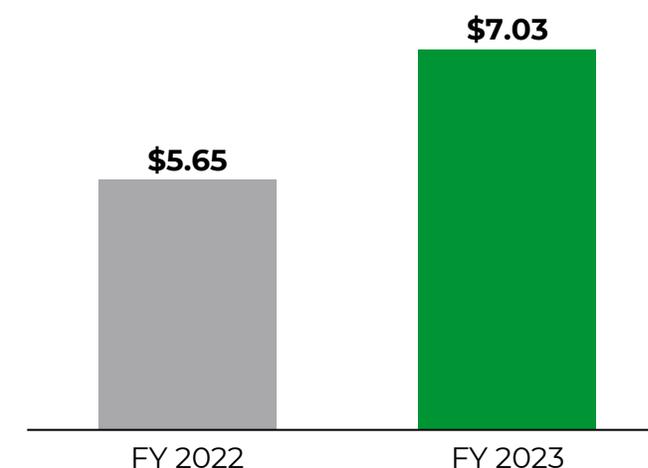
ADJUSTED OPERATING INCOME AND MARGIN



ADJUSTED OPERATING MARGIN OF 22.2%

- Volume leverage, price/cost management, and operations productivity drove 320 bps margin expansion
- Incremental margin of 41%
- Adjusted EBITDA margin of 25.1%, up 300 bps year-over-year

ADJUSTED EPS



ADJUSTED EPS GROWTH OF 24%

- Higher operating profit drove growth, partially offset by adjusted tax rate and interest expense

2024 Outlook



Mid-Single Digit Growth Outlook Reflects Resilient Demand and Strong Commercial Strategy

	% NET SALES ⁽¹⁾	DIVERSE END MARKETS
FIREFIGHTER SAFETY <ul style="list-style-type: none"> • SCBA • Helmets • Protective apparel and boots 	<p>38%</p>	<ul style="list-style-type: none"> • Government fire service • Municipal fire service • First responder
DETECTION <ul style="list-style-type: none"> • Fixed gas and flame detection • Refrigerant detection and identification • Portable gas detection 	<p>36%</p>	<ul style="list-style-type: none"> • Energy and utilities • HVAC-R • Water and wastewater • Food retail • Industrial
INDUSTRIAL PPE and OTHER <ul style="list-style-type: none"> • Industrial head protection • Fall protection • APR and other PPE 	<p>26%</p>	<ul style="list-style-type: none"> • Energy and utilities • Construction • Manufacturing • Industrial • Healthcare and pharma

OPERATING ENVIRONMENT UPDATE

POSITIVES

- Growing global demand for safety products and solutions
- Stable funding environment for firefighter safety
- Supportive market dynamics in detection
- Infrastructure stimulus in key regions
- Excess backlog opportunity in 1H
- Leveraging MBS to enhance commercial excellence and drive productivity

CHALLENGES

- Industrial end market demand mixed
- Supply chain has improved, but challenges remain
- Macroeconomic and geopolitical uncertainty impacts 2H 2024 visibility

(1) % of net sales for the trailing 12-month period ended December 31, 2023.

Key Takeaways

Focused on Delivering Profitable Growth and Value Creation Over the Long-Term



Strong execution in 2023 resulting in double-digit growth, healthy margin expansion, and robust cash generation



Mission-driven culture and unwavering commitment to the safety of our customers and our employees



Reliable, diversified base business drives organic growth and margin expansion opportunities across economic cycles



Reinvestment in innovation and technology, including strategic M&A, enables leading positions in attractive end markets



Strong balance sheet supports growth investments and increased return of capital to shareholders while deleveraging



THE SAFETY COMPANY

INVESTOR DAY 2024

Wednesday, May 22 | NYC | REGISTRATION DETAILS TO FOLLOW

FEATURING SESSIONS ON:

Our commitment to safety | Innovation and new product development | Long-term strategy | Financial performance and outlook



THE



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Appendix

Reconciliation of Non-GAAP Financial Measures



Constant Currency Sales Growth (Unaudited) – Consolidated

	Three Months Ended December 31, 2023			
	Firefighter Safety ^(a)	Detection ^(b)	Industrial PPE and Other ^(c)	Net Sales
GAAP reported sales change	17%	11%	5%	12%
Plus: Currency translation effects	(1%)	(2%)	(3%)	(2%)
Constant currency sales change	16%	9%	2%	10%

	Twelve Months Ended December 31, 2023			
	Firefighter Safety ^(a)	Detection ^(b)	Industrial PPE and Other ^(c)	Net Sales
GAAP reported sales change	18%	20%	12%	17%
Plus: Currency translation effects	— %	(1%)	(2%)	(1%)
Constant currency sales change	18%	19%	10%	16%

(a) Firefighter Safety includes Breathing Apparatus and Firefighter Helmets and Protective Apparel.

(b) Detection includes Fixed Gas and Flame Detection and Portable Gas Detection.

(c) Industrial PPE and Other includes Industrial Head Protection, Fall Protection and Non-Core.

Management believes that constant currency revenue growth is a useful metric for investors, as foreign currency translation can have a material impact on revenue growth trends. Constant currency revenue growth highlights ongoing business performance excluding the impact of fluctuating foreign currencies, which is outside of management's control. There can be no assurances that MSA's definition of constant currency revenue growth is consistent with that of other companies. As such, management believes that it is appropriate to consider revenue growth determined on a GAAP basis in addition to this non-GAAP financial measure.

Reconciliation of Non-GAAP Financial Measures



Constant Currency Sales Growth (Unaudited) – Americas Segment

	Three Months Ended December 31, 2023			
	Firefighter Safety ^(a)	Detection ^(b)	Industrial PPE and Other ^(c)	Net Sales
GAAP reported sales change	22%	15%	4%	15%
Plus: Currency translation effects	— %	(1%)	(2%)	(1%)
Constant currency sales change	22%	14%	2%	14%

	Twelve Months Ended December 31, 2023			
	Firefighter Safety ^(a)	Detection ^(b)	Industrial PPE and Other ^(c)	Net Sales
GAAP reported sales change	20%	20%	13%	18%
Plus: Currency translation effects	— %	(1%)	(2%)	(1%)
Constant currency sales change	20%	19%	11%	17%

(a) Firefighter Safety includes Breathing Apparatus and Firefighter Helmets and Protective Apparel.

(b) Detection includes Fixed Gas and Flame Detection and Portable Gas Detection.

(c) Industrial PPE and Other includes Industrial Head Protection, Fall Protection and Non-Core.

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Reconciliation of Non-GAAP Financial Measures



Constant Currency Sales Growth (Unaudited) – International Segment

	Three Months Ended December 31, 2023			
	Firefighter Safety ^(a)	Detection ^(b)	Industrial PPE and Other ^(c)	Net Sales
GAAP reported sales change	6%	5%	6%	6%
Plus: Currency translation effects	(4%)	(3%)	(3%)	(3%)
Constant currency sales change	2%	2%	3%	3%

	Twelve Months Ended December 31, 2023			
	Firefighter Safety ^(a)	Detection ^(b)	Industrial PPE and Other ^(c)	Net Sales
GAAP reported sales change	12%	20%	8%	14%
Plus: Currency translation effects	(1%)	(1%)	— %	(1%)
Constant currency sales change	11%	19%	8%	13%

(a) Firefighter Safety includes Breathing Apparatus and Firefighter Helmets and Protective Apparel.

(b) Detection includes Fixed Gas and Flame Detection and Portable Gas Detection.

(c) Industrial PPE and Other includes Industrial Head Protection, Fall Protection and Non-Core.

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Reconciliation of Non-GAAP Financial Measures



Segment Information (Unaudited)

(In thousands, except percentage amounts)	Americas	International	Corporate	Consolidated
Three Months Ended December 31, 2023				
Net sales to external customers	\$ 332,676	\$ 162,682	\$ -	\$ 495,358
Operating income				102,250
Operating margin %				20.6%
Restructuring charges				1,510
Currency exchange losses, net				8,298
Amortization of acquisition-related intangible assets				2,310
Transaction costs ^(a)				887
Adjusted operating income (loss)	99,189	29,600	(13,534)	115,255
Adjusted operating margin %	29.8%	18.2%		23.3%
Depreciation and amortization				13,498
Adjusted EBITDA	108,968	33,108	(13,323)	128,753
Adjusted EBITDA margin %	32.8%	20.4%		26.0%
Three Months Ended December 31, 2022				
Net sales to external customers	\$ 289,122	\$ 154,132	\$ -	\$ 443,254
Operating income				70,620
Operating margin %				15.9%
Restructuring charges				4,819
Currency exchange losses, net				5,467
Product liability expense				10,857
Amortization of acquisition-related intangible assets				2,285
Transaction costs ^(a)				1,757
Adjusted operating income (loss)	82,728	26,249	(13,172)	95,805
Adjusted operating margin %	28.6%	17.0%		21.6%
Depreciation and amortization				12,149
Adjusted EBITDA	91,525	29,471	(13,042)	107,954
Adjusted EBITDA margin %	31.7%	19.1%		24.4%

(a) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures. These costs are included in selling, general and administrative expense in the unaudited Condensed Consolidated Statements of Income.

The Americas segment is comprised of our operations in Northern North American and Latin American geographies. The International segment is comprised of our operations in all geographies outside of the Americas. Certain global expenses are allocated to each segment in a manner consistent with where the benefits from the expenses are derived.

Reconciliation of Non-GAAP Financial Measures



Segment Information (Unaudited)

(In thousands, except percentage amounts)	<u>Americas</u>	<u>International</u>	<u>Corporate</u>	<u>Consolidated</u>
Twelve Months Ended December 31, 2023				
Net sales to external customers	\$ 1,235,594	\$ 552,053	\$ -	\$ 1,787,647
Operating income				231,320
Operating margin %				12.9%
Restructuring charges				9,892
Currency exchange losses, net				17,079
Loss on divestiture of MSA LLC				129,211
Product liability expense				3
Amortization of acquisition-related intangible assets				9,246
Transaction costs ^(a)				965
Adjusted operating income (loss)	359,617	89,699	(51,600)	397,716
Adjusted operating margin %	29.1%	16.2%		22.2%
Depreciation and amortization				51,527
Adjusted EBITDA	396,596	103,404	(50,757)	449,243
Adjusted EBITDA margin %	32.1%	18.7%		25.1%
Twelve Months Ended December 31, 2022				
Net sales to external customers	\$ 1,043,238	\$ 484,715	\$ -	\$ 1,527,953
Operating income				239,137
Operating margin %				15.7%
Restructuring charges				7,965
Currency exchange losses, net				10,255
Product liability expense				20,590
Amortization of acquisition-related intangible assets				9,207
Transaction costs ^(a)				3,233
Adjusted operating income (loss)	267,392	60,923	(37,928)	290,387
Adjusted operating margin %	25.6%	12.6%		19.0%
Depreciation and amortization				47,110
Adjusted EBITDA	301,726	73,179	(37,408)	337,497
Adjusted EBITDA margin %	28.9%	15.1%		22.1%

(a) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures. These costs are included in selling, general and administrative expense in the unaudited Condensed Consolidated Statements of Income.

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Reconciliation of Non-GAAP Financial Measures



Adjusted Earnings and Adjusted Earnings per Diluted Share (Unaudited)

(In thousands, except per share amounts)	Three Months Ended December 31,			Twelve Months Ended December 31,		
	2023	2022	% Change	2023	2022	% Change
Net income attributable to MSA Safety Incorporated	\$ 76,410	\$ 51,489	48%	\$ 58,583	\$ 179,630	(67%)
Loss on divestiture of MSA LLC	—	—		129,211	—	
Deferred tax asset write-off related to divestiture of MSA LLC	—	—		70,366	—	
Product liability expense	—	10,857		3	20,590	
Restructuring charges	1,510	4,819		9,892	7,965	
Transaction costs ^(a)	887	1,757		965	3,233	
Amortization of acquisition-related intangible assets	2,310	2,285		9,246	9,207	
Currency exchange losses, net	8,298	5,467		17,079	10,255	
Asset related losses and other	844	1,515		173	6,290	
Tax benefit associated with tax reform	(5,313)	—		(5,313)	—	
Income tax expense on adjustments	(3,409)	(7,263)		(12,657)	(14,662)	
Adjusted earnings	\$ 81,537	\$ 70,926	15%	\$ 277,548	\$ 222,508	25%
Adjusted earnings per diluted share	\$ 2.06	\$ 1.80	14%	\$ 7.03	\$ 5.65	24%

(a) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures. These costs are included in selling, general and administrative expense in the unaudited Condensed Consolidated Statements of Income.

Management believes that adjusted earnings and adjusted earnings per diluted share are useful measures for investors, as management uses these measures to internally assess the company's performance and ongoing operating trends. There can be no assurances that additional special items will not occur in future periods, nor that MSA's definition of adjusted earnings is consistent with that of other companies. As such, management believes that it is appropriate to consider both net (loss) income determined on a GAAP basis as well as adjusted earnings.

Reconciliation of Non-GAAP Financial Measures



Adjusted Operating Income and Adjusted Earnings per Diluted Share (Unaudited)

	Twelve Months Ended December 31,	
	2023	2018
Net sales to external customers	\$ 1,787,647	\$ 1,358,104
Operating income	231,320	173,479
Operating margin %	12.9%	12.8%
Restructuring charges	9,892	13,247
Currency exchange losses, net	17,079	2,330
Loss on divestiture of MSA LLC	129,211	-
Product liability expense	3	45,327
Amortization of acquisition-related intangible assets	9,246	-
Transaction costs ^(a)	965	421
Adjusted operating income	397,716	234,804
Adjusted operating margin %	22.2%	17.3%
Net income attributable to MSA Safety Incorporated	\$ 58,583	\$ 124,150
Loss on divestiture of MSA LLC	129,211	-
Deferred tax asset w rite-off related to divestiture of MSA LLC	70,366	-
Product liability expense	3	45,327
Restructuring charges	9,892	13,247
Transaction costs ^(a)	965	421
Amortization of acquisition-related intangible assets	9,246	-
Currency exchange losses, net	17,079	2,330
Loss on extinguishment of debt	-	1,494
Asset related losses and other	173	484
Tax benefit associated w ith tax reform	(5,313)	2,518
Income tax expense on adjustments	(12,657)	(14,537)
Adjusted earnings	\$ 277,548	\$ 175,434
Adjusted earnings per diluted share	\$ 7.03	\$ 4.50

(a) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures. These costs are included in selling, general and administrative expense in the unaudited Condensed Consolidated Statements of Income.

Reconciliation of Non-GAAP Financial Measures



Free Cash Flow (Unaudited)

(In thousands, except percentage amounts)

	Three Months Ended			Twelve Months Ended		
	December 31,			December 31,		
	2023	2022	% Change	2023	2022	% Change
Cash flow from operating activities	\$ 158,914	\$ 53,552		\$ 92,857	\$ 157,455	
Contribution for divestiture of MSA LLC	-	-		341,186	-	
Product liability payments related to MSA LLC	-	-		5,250	-	
Capital expenditures	(11,785)	(13,800)		(42,764)	(42,553)	
Free cash flow	<u>\$ 147,129</u>	<u>\$ 39,752</u>	270%	<u>\$ 396,529</u>	<u>\$ 114,902</u>	245%
Adjusted earnings	81,537	70,926		277,548	222,508	
Free cash flow conversion	180%	56%		143%	52%	

Management believes that free cash flow is a meaningful measure for investors. Management reviews cash from operations after deducting capital expenditures because these expenditures are necessary to promote growth of MSA's business and are likely to produce cash from operations in future periods. It is important to note that free cash flow does not reflect the residual cash balance of the company for discretionary spending since other items, including debt and dividend payments, are deducted from free cash flow before arriving at the company's ending cash balance. Management defines free cash flow conversion as free cash flow divided by adjusted earnings. There can be no assurances that MSA's definition of free cash flow is consistent with that of other companies. As such, management believes that it is appropriate to consider cash from operating activities determined on a GAAP basis as well as free cash flow.

The free cash flow for the twelve months ended 2023 is adjusted to reflect the divestiture of MSA LLC.

Reconciliation of Non-GAAP Financial Measures



Debt to Adjusted EBITDA and Net Debt to Adjusted EBITDA (Unaudited)

(In thousands)	Twelve Months Ended December 31, 2023
Operating income	\$ 231,320
Loss on divestiture of MSA LLC	129,211
Depreciation and amortization	51,527
Product liability expense	3
Restructuring charges	9,892
Currency exchange losses, net	17,079
Amortization of acquisition-related intangible assets	9,246
Transaction costs ^(a)	965
Adjusted EBITDA	<u>\$ 449,243</u>
Total end-of-period debt	601,692
Debt to adjusted EBITDA	<u>1.3</u>
Total end-of-period debt	\$ 601,692
Total end-of-period cash and cash equivalents	<u>146,442</u>
Net debt	<u>\$ 455,250</u>
Net debt to adjusted EBITDA	<u>1.0</u>

(a) Transaction costs include advisory, legal, accounting, valuation, and other professional or consulting fees incurred during acquisitions and divestitures. These costs are included in selling, general and administrative expense in the Consolidated Statements of Income.

Management believes that Debt to Adjusted EBITDA and Net Debt to Adjusted EBITDA are useful measures for investors, as management uses these measures to internally assess the Company's liquidity and balance sheet strength. There can be no assurances that that MSA's definition of Debt to Adjusted EBITDA and Net Debt to Adjusted EBITDA is consistent with that of other companies.

Reconciliation of Non-GAAP Financial Measures



R&D Investment (Unaudited)

(In thousands)	Twelve Months Ended December 31,	
	2023	2022
Research and development expense	\$ 67,988	\$ 57,012
Capitalized software development costs	\$ 12,060	\$ 8,713
Total R&D investment	80,048	65,725
Net sales	\$ 1,787,647	\$ 1,527,953
R&D investment (% net sales)	4.5%	4.3%

Management believes that total R&D investment is a meaningful measure for investors. Management includes capitalized software development costs when evaluating total research and development expenditures as it believes it better represents its overall spend. Management defines R&D investment as research and development expense plus capitalized software development cost. As such, management believes that it is appropriate to consider research and development expense determined on a GAAP basis as well as total R&D investment.

Reconciliation of Non-GAAP Financial Measures



Adjusted Debt Repayment (Unaudited)

(In thousands)	Twelve Months Ended December 31,	
	2023	2022
Change in debt	\$ 23,898	\$ (13,000)
Borrowings related to divestiture of MSA LLC ^(a)	\$ (312,943)	\$ -
Adjusted payments on debt	(289,045)	(13,000)

^(a) Net of foreign exchange and issuance costs

Management believes that Adjusted Payments on Debt is a useful measure for investors, as management uses this measure to internally assess the Company's debt activity, less the divestiture of MSA LLC. There can be no assurances that MSA's definition of Adjusted Payments on Debt is consistent with that of other companies.