



1415 West 22nd Street
Oak Brook, Illinois 60523
630.954.2000
federalsignal.com

FOR IMMEDIATE RELEASE

Federal Signal Completes Record Year with Strong Fourth Quarter Results, including 30% Net Sales Growth, 55% Increase in Operating Income and 40% Improvement in Backlog; Issues Outlook for 2023

Oak Brook, Illinois, March 1, 2023 — Federal Signal Corporation (NYSE:FSS), a leader in environmental and safety solutions, today reported results for the fourth quarter and year ended December 31, 2022.

Fourth Quarter and Full-Year Highlights

- Record Q4 net sales of \$392 million, up \$90 million, or 30%, from last year; organic growth of \$71 million, or 24%
- Record full-year net sales of \$1.43 billion, up \$222 million, or 18%, from last year; organic growth of \$130 million, or 11%
- Q4 operating income of \$46.6 million, up \$16.5 million, or 55%, from last year
- GAAP EPS of \$0.57 for the quarter, up \$0.25, or 78%, from last year
- GAAP EPS of \$1.97 for the year, up \$0.34, or 21%, from last year
- Record adjusted EPS of \$0.57 for the quarter, up \$0.17, or 43%, from last year
- Record adjusted EPS of \$1.96 for the year, up \$0.21, or 12%, from last year
- Q4 orders of \$444 million, contributing to a record backlog of \$879 million, up \$250 million, or 40%, from last year
- Raises EBITDA margin target for the Safety and Security Systems Group to a new range of 17% to 21%, from the previous range of 15% to 18%
- Issues 2023 outlook with adjusted EPS* of \$2.15 to \$2.40 and net sales of \$1.58 billion to \$1.72 billion

Consolidated net sales for the fourth quarter were \$392 million, a new quarterly record and an increase of \$90 million, or 30%, compared to the same quarter a year ago. Net income for the fourth quarter was \$34.6 million, equal to \$0.57 per diluted share, compared to \$19.5 million, or \$0.32 per share, in the prior-year quarter. The Company also reported adjusted net income for the fourth quarter of \$35.0 million, equal to \$0.57 per diluted share, compared to \$24.9 million, or \$0.40 per share, in the same quarter a year ago. The Company is reporting adjusted results to facilitate comparisons of underlying performance on a year-over-year basis. A reconciliation of these and other non-GAAP measures is provided at the conclusion of this news release.

Consolidated net sales for the year ended December 31, 2022 were \$1.43 billion, the highest level in the Company's history, and an increase of \$222 million, or 18%, compared to the prior year. Net income for the year was \$120.4 million, equal to \$1.97 per diluted share, compared to \$100.6 million, or \$1.63 per share, in the prior year. Adjusted net income for the year was \$120.1 million, equal to \$1.96 per diluted share, compared to \$108.4 million, or \$1.75 per diluted share, in the prior year.

Strong Fourth Quarter Performance Wraps up Record Year; Customer Demand at Unprecedented Levels; Increasing EBITDA Margin Target for the Safety and Security Systems Group

“Our record-setting fourth quarter performance represented a strong finish to a year in which we delivered the highest net sales and adjusted EPS in our history,” commented Jennifer L. Sherman, President and Chief Executive Officer. “Within our Environmental Solutions Group, increased sales volumes, contributions from recent acquisitions, and strong price realization contributed to a 33% year-over-year net sales increase and a 300 basis point improvement in EBITDA margin. Our Safety and Security Systems Group also delivered impressive results, with double-digit top line growth and an EBITDA margin of approximately 20%, despite a week-long plant shutdown at our University Park facility in December due to a power outage. With its consistently strong performance over the last several quarters, we are increasing the EBITDA margin target for our Safety and Security Systems Group to a new range of 17% to 21%, from the previous range of 15% to 18%. Demand for our products remains high, with our order intake this quarter representing the second highest quarterly orders in our history, contributing to a record backlog of \$879 million at the end of 2022.”

In the Environmental Solutions Group, net sales for the fourth quarter were \$325 million, up \$80 million, or 33%, compared to the prior-year quarter, while in the Safety and Security Systems Group, net sales for the fourth quarter were \$66 million, up \$10 million, or 18%, compared to the prior-year quarter.

Consolidated operating income for the fourth quarter was \$46.6 million, up \$16.5 million, or 55%, compared to the prior-year quarter. Consolidated operating margin for the fourth quarter was 11.9%, compared to 10.0% last year.

Consolidated adjusted earnings before interest, tax, depreciation and amortization (“adjusted EBITDA”) for the fourth quarter was \$61.1 million, up \$21.1 million, or 53%, compared to last year, and consolidated adjusted EBITDA margin in the current-year quarter was 15.6%, compared to 13.3% last year.

Adjusted EBITDA in the Environmental Solutions Group for the fourth quarter was \$57.6 million, up \$21.4 million, or 59%, compared to last year, and its adjusted EBITDA margin in the current-year quarter was 17.7%, up from 14.7% last year. Within the Safety and Security Systems Group, adjusted EBITDA for the fourth quarter was \$13.2 million, up \$2.2 million, or 20%, compared to the prior-year quarter, and its adjusted EBITDA margin in the current-year quarter was 19.9%, up from 19.7% last year.

Orders for the fourth quarter were \$444 million, the second highest quarterly orders in the Company’s history. With the strong momentum in customer demand, consolidated backlog at December 31, 2022 was at an all-time high level of \$879 million, an improvement of \$250 million, or 40%, from last year.

New Credit Facility and Healthy Cash Flow Supports M&A, Organic Growth Investment and Cash Returns to Shareholders

Net cash of \$39 million was generated from operations in the fourth quarter, bringing the total year-to-date operating cash generation to \$72 million.

During the fourth quarter, the Company completed the acquisition of TowHaul Corporation and also closed the acquisition of Blasters, Inc. in January 2023. Last week, the Company also announced the signing of a definitive agreement to acquire substantially all the assets and operations of Trackless Vehicles Limited, a leading Canadian manufacturer of multi-purpose, off-road municipal tractors and attachments.

At December 31, 2022, total debt was \$363 million, total cash and cash equivalents were \$48 million and the Company had \$428 million of availability for borrowings under its new, five-year credit facility that was executed during the fourth quarter.

“With our financial position strengthened by the increased borrowing capacity under our new credit facility and our healthy cash generation, we have significant financial flexibility to invest in organic growth initiatives and fund cash returns to stockholders. We also intend to pursue additional strategic acquisitions, like Trackless, which represents the fifth acquisition announced in the last 16 months, all of which have been internally-sourced.” said Sherman.

During the fourth quarter, the Company funded dividends of \$5.4 million, and recently declared a similar \$0.09 per share dividend that will be payable in the first quarter of 2023.

Outlook

“Conditions in our end markets remain strong, and with the ongoing execution against our strategic initiatives and opportunities to drive improved efficiencies, we are confident that we will have another record year in 2023,” noted Sherman. “We have started to see benefits from federal stimulus funding in our recent order trends and improvement in supply chain. Although seasonal effects typically result in our first quarter earnings being lower than subsequent quarters, we are anticipating full-year net sales of between \$1.58 billion and \$1.72 billion, double-digit improvement in pre-tax earnings and EBITDA margin performance towards the upper end of our target range. For the full-year, we currently expect to report adjusted EPS* of between \$2.15 and \$2.40 per share, despite an aggregate year-over-year EPS headwind of approximately \$0.23 per share resulting from the normalization of our tax rate and higher interest expense. With an active M&A pipeline, ongoing investment in new product development, recently-completed capacity expansions, good access to skilled labor, and anticipated multi-year tailwinds from infrastructure legislation and economic stimulus, our businesses are well positioned for long-term, sustainable growth.”

CONFERENCE CALL

Federal Signal will host its fourth quarter earnings conference call on Wednesday, March 1, 2023 at 10:00 a.m. Eastern Time. The call will last approximately one hour. The call may be accessed over the internet through Federal Signal’s website at <https://www.federalsignal.com> or by dialing phone number 1-844-826-3035 and entering the pin number 10175806. An archived replay will be available on Federal Signal’s website shortly after the call.

About Federal Signal

Federal Signal Corporation (NYSE: FSS) builds and delivers equipment of unmatched quality that moves material, cleans infrastructure, and protects the communities where we work and live. Founded in 1901, Federal Signal is a leading global designer, manufacturer and supplier of products and total solutions that serve municipal, governmental, industrial and commercial customers. Headquartered in Oak Brook, Ill., with manufacturing facilities worldwide, the Company operates two groups: Environmental Solutions and Safety and Security Systems. For more information on Federal Signal, visit: <https://www.federsignal.com>.

“Safe Harbor” Statement under the Private Securities Litigation Reform Act of 1995

This release contains unaudited financial information and various forward-looking statements as of the date hereof and we undertake no obligation to update these forward-looking statements regardless of new developments or otherwise. Statements in this release that are not historical are forward-looking statements. Such statements are subject to various risks and uncertainties that could cause actual results to vary materially from those stated. Such risks and uncertainties include but are not limited to: direct and indirect impacts of the coronavirus pandemic and the associated government response, risks and adverse economic effects associated with emerging geopolitical conflicts, product and price competition, supply chain disruptions, work stoppages, availability and pricing of raw materials, cybersecurity risks, risks associated with acquisitions such as integration of operations and achieving anticipated revenue and cost benefits, foreign currency exchange rate changes, interest rate changes, increased legal expenses and litigation results, legal and regulatory developments and other risks and uncertainties described in filings with the Securities and Exchange Commission.

Contact: Ian Hudson, Chief Financial Officer, +1-630-954-2000, ihudson@federsignal.com

* Adjusted earnings per share (“EPS”) is a non-GAAP measure, which includes certain adjustments to reported GAAP net income and diluted EPS. In 2022, we made adjustments to exclude the impact of acquisition and integration-related expenses (benefits) and debt settlement charges, where applicable. Should any similar items occur in 2023, we would expect to exclude them from the determination of adjusted EPS. However, because of the underlying uncertainty in quantifying amounts which may not yet be known, a reconciliation of our Adjusted EPS outlook to the most applicable GAAP measure is excluded based on the unreasonable efforts exception in Item 10(e)(1)(i)(B).

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions, except per share data)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
Net sales	\$ 391.5	\$ 301.4	\$1,434.8	\$1,213.2
Cost of sales	294.9	234.0	1,089.9	924.5
Gross profit	96.6	67.4	344.9	288.7
Selling, engineering, general and administrative expenses	46.2	37.6	171.7	149.2
Amortization expense	3.3	2.7	12.9	10.9
Acquisition and integration related expenses (benefits)	0.5	(3.0)	(0.5)	(2.1)
Operating income	46.6	30.1	160.8	130.7
Interest expense	4.4	1.2	10.3	4.5
Debt settlement charges	0.1	—	0.1	—
Pension settlement charges	—	10.3	—	10.3
Other expense (income), net	0.1	(0.6)	(0.5)	(1.7)
Income before income taxes	42.0	19.2	150.9	117.6
Income tax expense (benefit)	7.4	(0.3)	30.5	17.0
Net income	\$ 34.6	\$ 19.5	\$ 120.4	\$ 100.6
Earnings per share:				
Basic	\$ 0.57	\$ 0.32	\$ 1.99	\$ 1.65
Diluted	\$ 0.57	\$ 0.32	\$ 1.97	\$ 1.63
Weighted average common shares outstanding:				
Basic	60.5	60.9	60.5	60.8
Diluted	61.2	61.8	61.2	61.9
Cash dividends declared per common share	\$ 0.09	\$ 0.09	\$ 0.36	\$ 0.36
Operating data:				
Operating margin	11.9 %	10.0 %	11.2 %	10.8 %
Adjusted EBITDA	\$ 61.1	\$ 40.0	\$ 215.0	\$ 180.5
Adjusted EBITDA margin	15.6 %	13.3 %	15.0 %	14.9 %
Total orders	\$ 444.2	\$ 443.8	\$1,692.2	\$1,538.8
Backlog	879.2	628.9	879.2	628.9
Depreciation and amortization	14.0	12.9	54.7	50.4

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(in millions, except per share data)	As of December 31,	
	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 47.5	\$ 40.5
Accounts receivable, net of allowances for doubtful accounts of \$2.5 and \$2.1, respectively	173.8	136.0
Inventories	292.7	229.1
Prepaid expenses and other current assets	17.4	25.4
Total current assets	531.4	431.0
Properties and equipment, net of accumulated depreciation of \$156.4 and \$151.6, respectively	179.3	141.9
Rental equipment, net of accumulated depreciation of \$45.4 and \$43.8, respectively	109.1	108.4
Operating lease right-of-use assets	24.7	29.8
Goodwill	453.4	432.2
Intangible assets, net of accumulated amortization of \$55.4 and \$42.7, respectively	208.2	205.7
Deferred tax assets	8.8	8.4
Deferred charges and other long-term assets	9.4	8.7
Total assets	\$ 1,524.3	\$ 1,366.1
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term borrowings and finance lease obligations	\$ 1.5	\$ 0.6
Accounts payable	72.4	64.8
Customer deposits	25.4	21.9
Accrued liabilities:		
Compensation and withholding taxes	31.1	29.9
Current operating lease liabilities	6.9	8.8
Other current liabilities	43.2	44.4
Total current liabilities	180.5	170.4
Long-term borrowings and finance lease obligations	361.5	282.2
Long-term operating lease liabilities	18.5	22.1
Long-term pension and other post-retirement benefit liabilities	38.9	40.4
Deferred tax liabilities	51.0	53.2
Other long-term liabilities	13.0	13.8
Total liabilities	663.4	582.1
Stockholders' equity:		
Common stock, \$1 par value per share, 90.0 shares authorized, 69.5 and 68.9 shares issued, respectively	69.5	68.9
Capital in excess of par value	271.8	256.7
Retained earnings	782.2	683.6
Treasury stock, at cost, 8.8 and 8.0 shares, respectively	(178.6)	(151.0)
Accumulated other comprehensive loss	(84.0)	(74.2)
Total stockholders' equity	860.9	784.0
Total liabilities and stockholders' equity	\$ 1,524.3	\$ 1,366.1

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	For the Years Ended December 31,	
	2022	2021
Operating activities:		
Net income	\$ 120.4	\$ 100.6
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	54.7	50.4
Deferred financing costs	0.4	0.3
Stock-based compensation expense	10.2	7.6
Pension settlement charges	—	10.3
Pension-related expense, net of funding	(1.4)	(3.8)
Changes in fair value of contingent consideration	—	(3.5)
Deferred income taxes, including change in valuation allowance	(4.2)	(6.5)
Changes in operating assets and liabilities:		
Accounts receivable	(38.0)	2.5
Inventories	(61.0)	(24.2)
Prepaid expenses and other current assets	(0.5)	(2.6)
Rental equipment	(26.0)	(15.9)
Accounts payable	8.3	6.4
Customer deposits	1.3	3.9
Accrued liabilities	1.1	(5.5)
Income taxes	8.0	(11.6)
Other	(1.5)	(6.6)
Net cash provided by operating activities	71.8	101.8
Investing activities:		
Purchases of properties and equipment	(53.0)	(37.4)
Payments for acquisition-related activity	(49.8)	(131.8)
Other, net	3.1	0.5
Net cash used for investing activities	(99.7)	(168.7)
Financing activities:		
Increase in revolving lines of credit, net	81.2	70.5
Payments of debt financing fees	(1.9)	—
Purchases of treasury stock	(16.1)	(15.4)
Redemptions of common stock to satisfy withholding taxes related to stock-based compensation	(6.2)	(10.7)
Cash dividends paid to stockholders	(21.8)	(22.0)
Proceeds from stock compensation activity	0.2	4.2
Other, net	0.1	(0.2)
Net cash provided by financing activities	35.5	26.4
Effects of foreign exchange rate changes on cash and cash equivalents	(0.6)	(0.7)
Increase (decrease) in cash and cash equivalents	7.0	(41.2)
Cash and cash equivalents at beginning of year	40.5	81.7
Cash and cash equivalents at end of year	<u>\$ 47.5</u>	<u>\$ 40.5</u>

FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES

GROUP RESULTS

The following tables summarize group operating results as of and for the three and twelve months ended December 31, 2022 and 2021:

Environmental Solutions Group

(\$ in millions)	Three Months Ended December 31,			Twelve Months Ended December 31,		
	2022	2021	Change	2022	2021	Change
Net sales	\$ 325.3	\$ 245.5	\$ 79.8	\$1,190.6	\$1,004.0	\$ 186.6
Operating income	44.7	24.1	20.6	144.5	120.5	24.0
Adjusted EBITDA	57.6	36.2	21.4	194.9	168.8	26.1
Operating data:						
Operating margin	13.7 %	9.8 %	3.9 %	12.1 %	12.0 %	0.1 %
Adjusted EBITDA margin	17.7 %	14.7 %	3.0 %	16.4 %	16.8 %	(0.4)%
Total orders	\$ 383.5	\$ 381.3	\$ 2.2	\$1,444.2	\$1,297.3	\$ 146.9
Backlog	824.4	576.4	248.0	824.4	576.4	248.0
Depreciation and amortization	12.8	12.0	0.8	50.3	46.7	3.6

Safety and Security Systems Group

(\$ in millions)	Three Months Ended December 31,			Twelve Months Ended December 31,		
	2022	2021	Change	2022	2021	Change
Net sales	\$ 66.2	\$ 55.9	\$ 10.3	\$ 244.2	\$ 209.2	\$ 35.0
Operating income	12.1	10.1	2.0	40.8	32.7	8.1
Adjusted EBITDA	13.2	11.0	2.2	45.0	36.4	8.6
Operating data:						
Operating margin	18.3 %	18.1 %	0.2 %	16.7 %	15.6 %	1.1 %
Adjusted EBITDA margin	19.9 %	19.7 %	0.2 %	18.4 %	17.4 %	1.0 %
Total orders	\$ 60.7	\$ 62.5	\$ (1.8)	\$ 248.0	\$ 241.5	\$ 6.5
Backlog	54.8	52.5	2.3	54.8	52.5	2.3
Depreciation and amortization	1.1	0.9	0.2	4.2	3.6	0.6

Corporate Expenses

Corporate operating expenses were \$10.2 million and \$4.1 million for the three months ended December 31, 2022 and 2021, respectively.

Corporate operating expenses were \$24.5 million and \$22.5 million for the years ended December 31, 2022 and 2021, respectively.

SEC REGULATION G NON-GAAP RECONCILIATION

The financial measures presented below are unaudited and are not in accordance with U.S. generally accepted accounting principles (“GAAP”). The non-GAAP financial information presented herein should be considered supplemental to, and not a substitute for, or superior to, financial measures calculated in accordance with GAAP. The Company has provided this supplemental information to investors, analysts, and other interested parties to enable them to perform additional analyses of operating results, to illustrate the results of operations giving effect to the non-GAAP adjustments shown in the reconciliations below, and to provide an additional measure of performance which management considers in operating the business.

Adjusted net income and adjusted earnings per share (“Adjusted EPS”):

The Company believes that modifying its 2022 and 2021 net income and diluted earnings per share (“EPS”) provides additional measures which are representative of the Company’s underlying performance and improve the comparability of results between reporting periods. Adjusted net income and Adjusted EPS are both non-GAAP measures. During the three and twelve months ended December 31, 2022 and 2021, adjustments were made to reported GAAP net income and diluted EPS to exclude the impact of acquisition and integration-related expenses (benefits), pension-related charges, coronavirus-related expenses, debt settlement charges, and purchase accounting effects, where applicable.

(in millions)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
Net income	\$ 34.6	\$ 19.5	\$ 120.4	\$ 100.6
Add (less):				
Income tax expense (benefit)	7.4	(0.3)	30.5	17.0
Income before income taxes	42.0	19.2	150.9	117.6
Add (less):				
Acquisition and integration-related expenses (benefits)	0.5	(3.0)	(0.5)	(2.1)
Pension-related charges ^(a)	—	10.3	—	10.6
Coronavirus-related expenses ^(b)	—	—	—	1.2
Debt settlement charges	0.1	—	0.1	—
Purchase accounting effects ^(c)	—	0.2	—	0.7
Adjusted income before income taxes	\$ 42.6	\$ 26.7	\$ 150.5	\$ 128.0
Adjusted income tax expense ^(d)	(7.6)	(1.8)	(30.4)	(19.6)
Adjusted net income	<u>\$ 35.0</u>	<u>\$ 24.9</u>	<u>\$ 120.1</u>	<u>\$ 108.4</u>
(dollars per diluted share)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
EPS, as reported	\$ 0.57	\$ 0.32	\$ 1.97	\$ 1.63
Add (less):				
Income tax expense (benefit)	0.12	(0.01)	0.50	0.27
Income before income taxes	0.69	0.31	2.47	1.90
Add (less):				
Acquisition and integration-related expenses (benefits)	0.01	(0.05)	(0.01)	(0.03)
Pension-related charges ^(a)	—	0.17	—	0.17
Coronavirus-related expenses ^(b)	—	—	—	0.02
Debt settlement charges	0.00	—	0.00	—
Purchase accounting effects ^(c)	—	0.00	—	0.01
Adjusted income before income taxes	\$ 0.70	\$ 0.43	\$ 2.46	\$ 2.07
Adjusted income tax expense ^(d)	(0.13)	(0.03)	(0.50)	(0.32)
Adjusted EPS	<u>\$ 0.57</u>	<u>\$ 0.40</u>	<u>\$ 1.96</u>	<u>\$ 1.75</u>

(a) Pension-related charges in the three and twelve months ended December 31, 2021 primarily relate to pension settlement charges incurred in connection with a pension annuitization project.

- (b) Coronavirus-related expenses in the twelve months ended December 31, 2021 relate to direct expenses incurred in connection with the Company's response to the coronavirus pandemic, that are incremental to, and separable from, normal operations. Such expenses primarily relate to incremental paid time off provided to employees and costs incurred to implement enhanced workplace safety protocols.
- (c) Purchase accounting effects in the three and twelve months ended December 31, 2021 relate to adjustments to exclude the step-up in the valuation of equipment acquired in recent business combinations that was sold during the periods presented.
- (d) Adjusted income tax expense for the three and twelve months ended December 31, 2022 and 2021 was recomputed after excluding the impact of acquisition and integration-related expenses (benefits), pension-related charges, coronavirus-related expenses, debt settlement charges, and purchase accounting effects, where applicable.

Adjusted EBITDA:

The Company uses adjusted EBITDA and the ratio of adjusted EBITDA to net sales (“adjusted EBITDA margin”), at both the consolidated and segment level, as additional measures which are representative of its underlying performance and to improve the comparability of results across reporting periods. We believe that investors use versions of these metrics in a similar manner. For these reasons, the Company believes that adjusted EBITDA and adjusted EBITDA margin, at both the consolidated and segment level, are meaningful metrics to investors in evaluating the Company’s underlying financial performance.

Consolidated adjusted EBITDA is a non-GAAP measure that represents the total of net income, interest expense, pension settlement charges, acquisition and integration-related expenses (benefits), coronavirus-related expenses, debt settlement charges, purchase accounting effects, other expense/income, income tax benefit/expense, and depreciation and amortization expense, as applicable. Consolidated adjusted EBITDA margin is a non-GAAP measure that represents the total of net income, interest expense, pension settlement charges, acquisition and integration-related expenses (benefits), coronavirus-related expenses, debt settlement charges, purchase accounting effects, other expense/income, income tax benefit/expense, and depreciation and amortization expense, as applicable, divided by net sales for the applicable period(s).

Segment adjusted EBITDA is a non-GAAP measure that represents the total of segment operating income, acquisition and integration-related expenses, coronavirus-related expenses, purchase accounting effects, and depreciation and amortization expense, as applicable. Segment adjusted EBITDA margin is a non-GAAP measure that represents the total of segment operating income, acquisition and integration-related expenses, coronavirus-related expenses, purchase accounting effects, and depreciation and amortization expense, as applicable, divided by net sales for the applicable period(s). Segment operating income includes all revenues, costs and expenses directly related to the segment involved. In determining segment income, neither corporate nor interest expenses are included. Segment depreciation and amortization expense relates to those assets, both tangible and intangible, that are utilized by the respective segment.

Other companies may use different methods to calculate adjusted EBITDA and adjusted EBITDA margin.

Consolidated

The following table summarizes the Company’s consolidated adjusted EBITDA and adjusted EBITDA margin and reconciles net income to consolidated adjusted EBITDA for the three and twelve months ended December 31, 2022 and 2021:

(\$ in millions)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
Net income	\$ 34.6	\$ 19.5	\$ 120.4	\$ 100.6
Add (less):				
Interest expense	4.4	1.2	10.3	4.5
Pension settlement charges	—	10.3	—	10.3
Acquisition and integration-related expenses (benefits)	0.5	(3.0)	(0.5)	(2.1)
Coronavirus-related expenses	—	—	—	1.2
Debt settlement charges	0.1	—	0.1	—
Purchase accounting effects *	—	—	—	0.3
Other expense (income), net	0.1	(0.6)	(0.5)	(1.7)
Income tax expense (benefit)	7.4	(0.3)	30.5	17.0
Depreciation and amortization	14.0	12.9	54.7	50.4
Consolidated adjusted EBITDA	\$ 61.1	\$ 40.0	\$ 215.0	\$ 180.5
Net sales	\$ 391.5	\$ 301.4	\$ 1,434.8	\$ 1,213.2
Consolidated adjusted EBITDA margin	15.6 %	13.3 %	15.0 %	14.9 %

* Excludes purchase accounting expense effects included within depreciation and amortization of \$0.2 million and \$0.4 million for the three and twelve months ended December 31, 2021, respectively

Environmental Solutions Group

The following table summarizes the Environmental Solutions Group's adjusted EBITDA and adjusted EBITDA margin and reconciles operating income to adjusted EBITDA for the three and twelve months ended December 31, 2022 and 2021:

(\$ in millions)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
Operating income	\$ 44.7	\$ 24.1	\$ 144.5	\$ 120.5
Add:				
Acquisition and integration-related expenses	0.1	0.1	0.1	0.3
Coronavirus-related expenses	—	—	—	1.0
Purchase accounting effects *	—	—	—	0.3
Depreciation and amortization	12.8	12.0	50.3	46.7
Adjusted EBITDA	<u>\$ 57.6</u>	<u>\$ 36.2</u>	<u>\$ 194.9</u>	<u>\$ 168.8</u>
Net sales	<u>\$ 325.3</u>	<u>\$ 245.5</u>	<u>\$ 1,190.6</u>	<u>\$ 1,004.0</u>
Adjusted EBITDA margin	<u>17.7 %</u>	<u>14.7 %</u>	<u>16.4 %</u>	<u>16.8 %</u>

* Excludes purchase accounting expense effects included within depreciation and amortization of \$0.2 million and \$0.4 million for the three and twelve months ended December 31, 2021, respectively

Safety and Security Systems Group

The following table summarizes the Safety and Security Systems Group's adjusted EBITDA and adjusted EBITDA margin and reconciles operating income to adjusted EBITDA for the three and twelve months ended December 31, 2022 and 2021:

(\$ in millions)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
Operating income	\$ 12.1	\$ 10.1	\$ 40.8	\$ 32.7
Add:				
Coronavirus-related expenses	—	—	—	0.1
Depreciation and amortization	1.1	0.9	4.2	3.6
Adjusted EBITDA	<u>\$ 13.2</u>	<u>\$ 11.0</u>	<u>\$ 45.0</u>	<u>\$ 36.4</u>
Net sales	<u>\$ 66.2</u>	<u>\$ 55.9</u>	<u>\$ 244.2</u>	<u>\$ 209.2</u>
Adjusted EBITDA margin	<u>19.9 %</u>	<u>19.7 %</u>	<u>18.4 %</u>	<u>17.4 %</u>