

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended October 2, 2021

OR TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number: 001-32598



Entegris, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

41-1941551

(I.R.S. Employer
Identification No.)

129 Concord Road, Billerica, Massachusetts
(Address of principal executive offices)

01821
(Zip Code)

(978) 436-6500

(Registrant's telephone number, including area code)

None

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common stock, \$0.01 par value per share	ENTG	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of October 22, 2021, there were 135,514,586 shares of the registrant's common stock outstanding.

ENTEGRIS, INC. AND SUBSIDIARIES
FORM 10-Q
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Cautionary Statements

This Quarterly Report on Form 10-Q contains “forward-looking statements.” The words “believe,” “expect,” “anticipate,” “intend,” “estimate,” “forecast,” “project,” “should,” “may,” “will,” “would” or the negative thereof and similar expressions are intended to identify such forward-looking statements. These forward-looking statements may include statements about the impact of the COVID-19 pandemic on the Company’s operations and markets, including supply chain issues related thereto; future period guidance or projections; the Company’s performance relative to its markets, including the drivers of such performance; market and technology trends, including the duration and drivers of any growth trends and the impact of the COVID-19 pandemic on such trends; the development of new products and the success of their introductions; the focus of the Company’s engineering, research and development projects; the Company’s ability to execute on its business strategies, including with respect to Company’s expansion of its manufacturing presence in Taiwan; the Company’s capital allocation strategy, which may be modified at any time for any reason, including share repurchases, dividends, debt repayments and potential acquisitions; the impact of the acquisitions the Company has made and commercial partnerships the Company has established; future capital and other expenditures, including estimates thereof; the Company’s expected tax rate; the impact, financial or otherwise, of any organizational changes; the impact of accounting pronouncements; quantitative and qualitative disclosures about market risk; and other matters. These forward-looking statements are based on current management expectations and assumptions only as of the date of this Quarterly Report, are not guarantees of future performance and involve substantial risks and uncertainties that are difficult to predict and that could cause actual results to differ materially from the results expressed in, or implied by, these forward-looking statements. These risks and uncertainties include, but are not limited to, risks related to the COVID-19 pandemic on the global economy and financial markets, as well as on the Company, its customers and suppliers, which may impact its sales, gross margin, customer demand and its ability to supply its products to its customers; raw material shortages, supply and labor constraints and price increases; weakening of global and/or regional economic conditions, generally or specifically in the semiconductor industry, which could decrease the demand for the Company’s products and solutions; the Company’s ability to meet rapid demand shifts; the Company’s ability to continue technological innovation and introduce new products to meet customers’ rapidly changing requirements; the Company’s concentrated customer base; the Company’s ability to identify, complete and integrate acquisitions, joint ventures or other transactions; the Company’s ability to effectively implement any organizational changes; the Company’s ability to protect and enforce intellectual property rights; operational, political and legal risks of the Company’s international operations; the

Company's dependence on sole source and limited source suppliers; the increasing complexity of certain manufacturing processes; changes in government regulations of the countries in which the Company operates, including the imposition of tariffs, export controls and other trade laws and restrictions and changes to foreign and national security policy, especially as they relate to China; fluctuation of currency exchange rates; fluctuations in the market price of the Company's stock; the level of, and obligations associated with, the Company's indebtedness; and other risk factors and additional information described in the Company's filings with the Securities and Exchange Commission, including under the heading "Risks Factors" in Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed on February 5, 2021, and in the Company's other periodic filings. Except as required under the federal securities laws and the rules and regulations of the Securities and Exchange Commission, the Company undertakes no obligation to update publicly any forward-looking statements or information contained herein, which speak as of their respective dates.

PART 1. FINANCIAL INFORMATION

Item 1. Financial Statements

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

(In thousands, except share and per share data)

	October 2, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 475,752	\$ 580,893
Trade accounts and notes receivable, net of allowance for doubtful accounts of \$2,356 and \$2,384	315,073	264,392
Inventories, net	429,016	323,944
Deferred tax charges and refundable income taxes	21,760	21,136
Other current assets	34,104	43,892
Total current assets	1,275,705	1,234,257
Property, plant and equipment, net of accumulated depreciation of \$632,241 and \$574,257	597,630	525,367
Other assets:		
Right-of-use assets	56,990	45,924
Goodwill	749,933	748,037
Intangible assets, net of accumulated amortization of \$482,098 and \$445,795	302,487	337,632
Deferred tax assets and other noncurrent tax assets	17,565	14,519
Other	11,965	11,960
Total assets	\$ 3,012,275	\$ 2,917,696
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	\$ 120,611	\$ 81,618
Accrued payroll and related benefits	90,684	94,364
Other accrued liabilities	91,129	82,648
Income taxes payable	6,989	43,996
Total current liabilities	309,413	302,626
Long-term debt, excluding current maturities, net of unamortized discount and debt issuance costs of \$8,296 and \$9,217	936,704	1,085,783
Pension benefit obligations and other liabilities	36,118	36,457
Deferred tax liabilities and other noncurrent tax liabilities	66,774	73,606
Long-term lease liability	52,486	39,730
Commitments and contingent liabilities	—	—
Equity:		
Preferred stock, par value \$.01; 5,000,000 shares authorized; none issued and outstanding as of October 2, 2021 and December 31, 2020	—	—
Common stock, par value \$.01; 400,000,000 shares authorized; issued and outstanding shares as of October 2, 2021: 135,724,073 and 135,521,673, respectively; issued and outstanding shares as of December 31, 2020: 135,148,774 and 134,946,374, respectively	1,357	1,351
Treasury stock, at cost: 202,400 shares held as of October 2, 2021 and December 31, 2020	(7,112)	(7,112)
Additional paid-in capital	866,716	844,850
Retained earnings	788,830	577,833
Accumulated other comprehensive loss	(39,011)	(37,428)
Total equity	1,610,780	1,379,494
Total liabilities and equity	\$ 3,012,275	\$ 2,917,696

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

<i>(In thousands, except per share data)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Net sales	\$ 579,493	\$ 480,987	\$ 1,663,689	\$ 1,341,719
Cost of sales	315,289	254,987	899,115	722,869
Gross profit	264,204	226,000	764,574	618,850
Selling, general and administrative expenses	71,032	71,195	215,042	196,958
Engineering, research and development expenses	41,972	36,295	121,692	98,499
Amortization of intangible assets	11,843	11,749	35,616	41,176
Operating income	139,357	106,761	392,224	282,217
Interest expense	9,395	12,781	31,744	36,345
Interest income	(56)	(130)	(181)	(664)
Other expense (income), net	1,917	(1,752)	29,807	(1,351)
Income before income tax expense	128,101	95,862	330,854	247,887
Income tax expense	10,640	16,559	39,947	39,542
Net income	\$ 117,461	\$ 79,303	\$ 290,907	\$ 208,345
Basic earnings per common share	\$ 0.87	\$ 0.59	\$ 2.15	\$ 1.55
Diluted earnings per common share	\$ 0.86	\$ 0.58	\$ 2.13	\$ 1.53
Weighted shares outstanding:				
Basic	135,583	134,957	135,383	134,801
Diluted	136,631	136,252	136,556	136,209

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Net income	\$ 117,461	\$ 79,303	\$ 290,907	\$ 208,345
Other comprehensive income (loss), net of tax				
Foreign currency translation adjustments	637	4,765	(1,622)	(6,772)
Pension liability adjustments	—	9	39	28
Other comprehensive income (loss)	637	4,774	(1,583)	(6,744)
Comprehensive income	\$ 118,098	\$ 84,077	\$ 289,324	\$ 201,601

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)

<i>(In thousands)</i>	Common shares outstanding	Common stock	Treasury shares	Treasury stock	Additional paid-in capital	Retained earnings	Foreign currency translation adjustments	Defined benefit pension adjustments	Total
Balance at December 31, 2019	134,930	\$ 1,349	(202)	\$ (7,112)	\$ 842,784	\$ 366,127	\$ (36,468)	\$ (791)	\$ 1,165,889
Shares issued under stock plans	483	5	—	—	(10,894)	—	—	—	(10,889)
Share-based compensation expense	—	—	—	—	4,994	—	—	—	4,994
Repurchase and retirement of common stock	(604)	(6)	—	—	(3,740)	(25,818)	—	—	(29,564)
Dividends declared (\$0.08 per share)	—	—	—	—	15	(10,773)	—	—	(10,758)
Pension liability adjustment	—	—	—	—	—	—	—	10	10
Foreign currency translation	—	—	—	—	—	—	(9,361)	—	(9,361)
Net income	—	—	—	—	—	61,006	—	—	61,006
Balance at March 28, 2020	<u>134,809</u>	<u>\$ 1,348</u>	<u>(202)</u>	<u>\$ (7,112)</u>	<u>\$ 833,159</u>	<u>\$ 390,542</u>	<u>\$ (45,829)</u>	<u>\$ (781)</u>	<u>\$ 1,171,327</u>
Shares issued under stock plans	139	1	—	—	(83)	—	—	—	(82)
Share-based compensation expense	—	—	—	—	5,655	—	—	—	5,655
Dividends declared (\$0.08 per share)	—	—	—	—	8	(10,988)	—	—	(10,980)
Pension liability adjustment	—	—	—	—	—	—	—	9	9
Foreign currency translation	—	—	—	—	—	—	(2,176)	—	(2,176)
Net income	—	—	—	—	—	68,036	—	—	68,036
Balance at June 27, 2020	<u>134,948</u>	<u>\$ 1,349</u>	<u>(202)</u>	<u>\$ (7,112)</u>	<u>\$ 838,739</u>	<u>\$ 447,590</u>	<u>\$ (48,005)</u>	<u>\$ (772)</u>	<u>\$ 1,231,789</u>
Shares issued under stock plans	290	3	—	—	(8,689)	—	—	—	(8,686)
Share-based compensation expense	—	—	—	—	5,903	—	—	—	5,903
Repurchase of common stock	—	—	—	—	—	—	—	—	—
Dividends declared (\$0.08 per share)	—	—	—	—	—	(10,782)	—	—	(10,782)
Pension liability adjustment	—	—	—	—	—	—	—	9	9
Foreign currency translation	—	—	—	—	—	—	4,765	—	4,765
Net income	—	—	—	—	—	79,303	—	—	79,303
Balance at September 26, 2020	<u>135,238</u>	<u>\$ 1,352</u>	<u>(202)</u>	<u>\$ (7,112)</u>	<u>\$ 835,953</u>	<u>\$ 516,111</u>	<u>\$ (43,240)</u>	<u>\$ (763)</u>	<u>\$ 1,302,301</u>

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(Unaudited)

<i>(In thousands)</i>	Common shares outstanding	Common stock	Treasury shares	Treasury stock	Additional paid-in capital	Retained earnings	Foreign currency translation adjustments	Defined benefit pension adjustments	Total
Balance at December 31, 2020	135,149	\$ 1,351	(202)	\$ (7,112)	\$ 844,850	\$ 577,833	\$ (36,588)	\$ (840)	\$ 1,379,494
Shares issued under stock plans	392	4	—	—	(13,470)	—	—	—	(13,466)
Share-based compensation expense	—	—	—	—	7,138	—	—	—	7,138
Repurchase and retirement of common stock	(145)	(1)	—	—	(904)	(14,095)	—	—	(15,000)
Dividends declared (\$0.08 per share)	—	—	—	—	8	(10,840)	—	—	(10,832)
Pension liability adjustment	—	—	—	—	—	—	—	39	39
Foreign currency translation	—	—	—	—	—	—	(3,716)	—	(3,716)
Net income	—	—	—	—	—	84,676	—	—	84,676
Balance at April 3, 2021	<u>135,396</u>	<u>\$ 1,354</u>	<u>(202)</u>	<u>\$ (7,112)</u>	<u>\$ 837,622</u>	<u>\$ 637,574</u>	<u>\$ (40,304)</u>	<u>\$ (801)</u>	<u>\$ 1,428,333</u>
Shares issued under stock plans	559	5	—	—	15,185	—	—	—	15,190
Share-based compensation expense	—	—	—	—	7,519	—	—	—	7,519
Repurchase and retirement of common stock	(130)	(1)	—	—	(813)	(14,186)	—	—	(15,000)
Dividends declared (\$0.08 per share)	—	—	—	—	7	(10,945)	—	—	(10,938)
Pension liability adjustment	—	—	—	—	—	—	—	—	—
Foreign currency translation	—	—	—	—	—	—	1,457	—	1,457
Net income	—	—	—	—	—	88,770	—	—	88,770
Balance at July 3, 2021	<u>135,825</u>	<u>\$ 1,358</u>	<u>(202)</u>	<u>\$ (7,112)</u>	<u>\$ 859,520</u>	<u>\$ 701,213</u>	<u>\$ (38,847)</u>	<u>\$ (801)</u>	<u>\$ 1,515,331</u>
Shares issued under stock plans	65	1	—	—	779	—	—	—	780
Share-based compensation expense	—	—	—	—	7,467	—	—	—	7,467
Repurchase and retirement of common stock	(166)	(2)	—	—	(1,050)	(18,948)	—	—	(20,000)
Dividends declared (\$0.08 per share)	—	—	—	—	—	(10,896)	—	—	(10,896)
Pension liability adjustment	—	—	—	—	—	—	—	—	—
Foreign currency translation	—	—	—	—	—	—	637	—	637
Net income	—	—	—	—	—	117,461	—	—	117,461
Balance at October 2, 2021	<u>135,724</u>	<u>\$ 1,357</u>	<u>(202)</u>	<u>\$ (7,112)</u>	<u>\$ 866,716</u>	<u>\$ 788,830</u>	<u>\$ (38,210)</u>	<u>\$ (801)</u>	<u>\$ 1,610,780</u>

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

<i>(In thousands)</i>	Nine months ended	
	October 2, 2021	September 26, 2020
Operating activities:		
Net income	\$ 290,907	\$ 208,345
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	67,510	62,064
Amortization	35,616	41,176
Share-based compensation expense	22,124	16,552
Provision for deferred income taxes	(12,307)	14,958
Loss on extinguishment of debt and modification	23,338	2,378
Charge for excess and obsolete inventory	10,066	11,933
Other	265	3,836
Changes in operating assets and liabilities:		
Trade accounts and notes receivable	(53,358)	(65,367)
Inventories	(115,187)	(54,278)
Accounts payable and accrued liabilities	37,577	10,076
Other current assets	10,575	2,189
Income taxes payable and refundable income taxes	(35,275)	(11,995)
Other	2,623	789
Net cash provided by operating activities	284,474	242,656
Investing activities:		
Acquisition of property, plant and equipment	(133,986)	(79,560)
Acquisition of businesses, net of cash acquired	(2,250)	(111,145)
Other	4,416	265
Net cash used in investing activities	(131,820)	(190,440)
Financing activities:		
Proceeds from revolving credit facility	51,000	217,000
Payments of revolving credit facility	(51,000)	(217,000)
Proceeds from long-term debt	400,000	400,000
Payments of long-term debt	(550,000)	(251,000)
Payments for debt extinguishment costs	(19,080)	—
Payments for debt issuance costs	(5,069)	(3,964)
Payments for dividends	(32,650)	(32,446)
Issuance of common stock	17,872	4,899
Repurchase and retirement of common stock	(50,000)	(29,564)
Taxes paid related to net share settlement of equity awards	(15,368)	(24,556)
Deferred acquisition payments	—	(16,125)
Other	(218)	(2,892)
Net cash (used in) provided by financing activities	(254,513)	44,352
Effect of exchange rate changes on cash and cash equivalents	(3,282)	(507)
(Decrease) increase in cash and cash equivalents	(105,141)	96,061
Cash and cash equivalents at beginning of period	580,893	351,911
Cash and cash equivalents at end of period	\$ 475,752	\$ 447,972

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
(Unaudited)

Supplemental Cash Flow Information (unaudited) <i>(In thousands)</i>	Nine months ended	
	October 2, 2021	September 26, 2020
Non-cash transactions:		
Deferred acquisition payments	\$ 250	\$ 2,785
Equipment purchases in accounts payable	15,965	7,543
(Decrease) increase in dividends payable	(16)	74
Schedule of interest and income taxes paid:		
Interest paid	29,759	33,164
Income taxes paid, net of refunds received	85,409	35,544

See the accompanying notes to condensed consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations Entegris, Inc. (“Entegris”, “the Company”, “us”, “we”, or “our”) is a leading supplier of advanced materials and process solutions for the semiconductor and other high-technology industries.

Principles of Consolidation The condensed consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. Intercompany profits, transactions and balances have been eliminated in consolidation.

Use of Estimates The preparation of condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, particularly receivables, inventories, property, plant and equipment, right-of-use assets, goodwill, intangibles, accrued expenses, short-term and long-term lease liability, income taxes and related accounts, and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Basis of Presentation The condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States and contain all adjustments considered necessary, and are of a normal recurring nature, to present fairly the financial position as of October 2, 2021 and December 31, 2020, and the results of operations and comprehensive income for the three and nine months ended October 2, 2021 and September 26, 2020, the equity statements as of and for the three and nine months ended October 2, 2021 and September 26, 2020, and cash flows for the nine months ended October 2, 2021 and September 26, 2020.

The condensed consolidated financial statements and accompanying notes are presented as permitted by Form 10-Q and do not contain certain information included in the Company’s annual consolidated financial statements and notes. The information included in this Form 10-Q should be read in conjunction with Management’s Discussion and Analysis and consolidated financial statements and notes thereto included in the Company’s Form 10-K for the year ended December 31, 2020. The results of operations for the three and nine months ended October 2, 2021 are not necessarily indicative of the results to be expected for the full year.

Fair Value of Financial Instruments The carrying value of accounts receivable, accounts payable, accrued payroll and related benefits, and other accrued liabilities approximates fair value due to the short maturity of those items. As of October 2, 2021, the Company has cash equivalents of \$15.0 million, consisting of money market funds. The fair value of cash equivalents was determined based on Level 1 inputs, which include unadjusted quoted prices in active markets for identical assets. The fair value of long-term debt, including current maturities, was \$959.8 million at October 2, 2021, compared to the carrying amount of long-term debt, including current maturities, of \$936.7 million at October 2, 2021.

Recently Adopted Accounting Pronouncements In December 2019, the FASB issued ASU No. 2019-12, “Simplifying the Accounting for Income Taxes” under ASC 740, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and amends existing guidance to improve consistent application. This guidance is effective for fiscal years beginning after December 15, 2020, including interim periods within that fiscal year. The Company adopted this new guidance in the first quarter of fiscal 2021. The adoption of ASU 2019-12 did not have a material impact on the condensed consolidated financial statements.

Recently Issued Accounting Pronouncements The Company currently has no material recent accounting pronouncements yet to be adopted.

2. REVENUES

Revenue Recognition Revenue is measured based on consideration specified in a contract with a customer, and excludes any sales incentives and amounts collected on behalf of third parties. The Company recognizes revenue when it satisfies a performance obligation by transferring control over a product or service to a customer.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from revenue.

Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of sales.

The Company recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that the Company otherwise would have recognized is one year or less.

When the Company receives consideration, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of a sales contract, the Company records deferred revenue, which represents a contract liability. Such deferred revenue typically results from advance payments received on sales of the Company's products. The Company makes the required disclosures with respect to deferred revenue below.

The Company does not disclose information about remaining performance obligations that have original expected durations of one year or less.

Nature of goods and services The following is a description of principal activities from which the Company generates its revenues. The Company has three reportable segments. For more detailed information about reportable segments, see note 10 to the condensed consolidated financial statements. For each of the three reportable segments, the recognition of revenue regarding the nature of goods and services provided by the segments are similar and described below. The Company recognizes revenue for product sales at a point in time following the transfer of control of such products to the customer, which generally occurs upon shipment or delivery, depending on the terms of the underlying contracts. For product sales contracts that contain multiple performance obligations, the Company allocates the transaction price to each performance obligation identified in the contract based on relative standalone selling prices, or estimates of such prices, and recognizes the related revenue as control of each individual product is transferred to the customer, in satisfaction of the corresponding performance obligations.

The Company generally recognizes revenue for sales of services when the Company has satisfied the performance obligation. The payment terms and revenue recognized is based on time and materials.

The Company also enters into arrangements to license its intellectual property. These arrangements typically permit the customer to use a specialized manufacturing process or patented technology and in return the Company receives a royalty fee. The Company recognizes revenue for a sales-based or usage-based royalty promised in exchange for a license of intellectual property when the subsequent sale or usage occurs.

The Company offers certain customers cash discounts and volume rebates as sales incentives. The discounts and volume rebates are recorded as a reduction in sales at the time revenue is recognized in an amount estimated based on historical experience and contractual obligations. The Company periodically reviews the assumptions underlying its estimates of discounts and volume rebates and adjusts its revenues accordingly.

In addition, the Company offers free product rebates to certain customers. The Company utilizes an adjusted market approach to estimate the stand-alone selling price of the loyalty program and allocates a portion of the consideration received to the free product offering. The free product offering is redeemable upon future purchases of the Company's products. The amount associated with free product rebates is recorded as deferred revenue on the balance sheet and is recognized as revenue when the free product is redeemed or when the likelihood of redemption is remote. The Company has deemed that the amount is immaterial for disclosure.

The Company provides for the estimated costs of fulfilling its obligations under product warranties at the time the related revenue is recognized. The Company estimates the costs based on historical failure rates, projected repair costs, and knowledge of specific product failures (if any). The specific warranty terms and conditions vary depending upon the product sold and the country in which the Company does business, but generally include parts and labor over a period generally ranging from 90 days to one year. The Company regularly reevaluates its estimates to assess the adequacy of the recorded warranty liabilities and adjusts the amounts as necessary.

The Company's contracts are generally short-term in nature. Most contracts' terms do not exceed twelve months. Payment terms vary by the type and location of the Company's customers and the products or services offered. The term between invoicing and when payment is due is not significant. For certain products or services and customer types, the Company requires payment before the products or services are delivered to the customer. Those customers that prepay are represented by the contract liabilities below until the performance obligations are satisfied.

The following table provides information about contract liabilities from contracts with customers. The contract liabilities are included in other accrued liabilities balance in the condensed consolidated balance sheet.

(In thousands)	October 2, 2021	December 31, 2020
Contract liabilities - current	\$ 17,049	\$ 13,852

Significant changes in the contract liabilities balances during the period are as follows:

(In thousands)	Nine months ended October 2, 2021
Revenue recognized that was included in the contract liability balance at the beginning of the period	\$ (13,561)
Increases due to cash received, excluding amounts recognized as revenue during the period	16,758

3. ACQUISITIONS

During the nine months ended October 2, 2021, the Company completed an acquisition for \$2.5 million, substantially all of which was paid in cash and qualified as a business combination. This acquisition has been included in the Company's condensed consolidated results of operations since its acquisition date. The effect of this business combination was not material to the Company's condensed consolidated results of operations.

Global Measurement Technologies, Inc.

On July 10, 2020, the Company acquired Global Measurement Technologies, Inc., an analytical instrument provider for critical processes in semiconductor production, and its manufacturing partner Clean Room Plastics, Inc. (collectively, "GMTI"). GMTI reports into the Advanced Materials Handling segment of the Company. Costs associated with the acquisition of GMTI were \$0.4 million and \$1.0 million for the three and nine months ended September 26, 2020, respectively, and were expensed as incurred. These costs are included in the selling, general and administrative expenses in the Company's condensed consolidated statement of operations. The acquisition was accounted for under the acquisition method of accounting, and GMTI's results of operations are included in the Company's condensed consolidated financial statements as of and since July 10, 2020. The acquisition does not constitute a material business combination.

The purchase price for GMTI includes cash consideration of \$36.3 million, net of cash acquired, which was funded from the Company's existing cash on hand.

The purchase price of GMTI exceeds the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed by \$16.1 million. Cash flows used to determine the purchase price included strategic and synergistic benefits (investment value) specific to the Company, which resulted in a purchase price in excess of the fair value of identifiable net assets. This additional investment value resulted in goodwill, which is deductible for income tax purposes.

During the quarter ended September 26, 2020, the Company finalized its fair value determination of the assets acquired and the liabilities assumed. The following table summarizes the final allocation of the purchase price to the fair values assigned to the assets acquired and liabilities assumed at the date of the acquisition:

(In thousands):	July 10, 2020
Trade accounts and note receivable, net	\$ 937
Inventories, net	1,079
Identifiable intangible assets	18,180
Right-of-use assets	337
Accounts payable and accrued liabilities	(28)
Short-term lease liability	(150)
Long-term lease liability	(187)
Net assets acquired	20,168
Goodwill	16,099
Total purchase price, net of cash acquired	\$ 36,267

The Company recognized the following finite-lived intangible assets as part of the acquisition of GMTI:

<i>(In thousands)</i>	Amount	Weighted average life in years
Developed technology	\$ 3,570	6.5
Trademarks and trade names	1,010	11.5
Customer relationships	13,600	15.5
	<u>\$ 18,180</u>	13.5

Sinmat

On January 10, 2020, the Company acquired Sinmat, a chemical mechanical polishing slurry manufacturer. Sinmat reports into the Specialty Chemicals and Engineered Materials segment of the Company. The acquisition was accounted for under the acquisition method of accounting and Sinmat's results of operations are included in the Company's condensed consolidated financial statements as of and since January 10, 2020. Costs associated with the acquisition of Sinmat were \$0.7 million for the nine months ended September 26, 2020 and were expensed as incurred. These costs are included in the selling, general and administrative expenses in the Company's condensed consolidated statement of operations. The acquisition does not constitute a material business combination.

The purchase price for Sinmat includes cash consideration of \$76.2 million, or \$75.6 million net of cash acquired, which was funded from the Company's existing cash on hand.

The purchase price of Sinmat exceeds the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed by \$31.7 million. Cash flows used to determine the purchase price included strategic and synergistic benefits (investment value) specific to the Company, which resulted in a purchase price in excess of the fair value of identifiable net assets. This additional investment value resulted in goodwill, which is deductible for income tax purposes.

During the quarter ended June 27, 2020, the Company finalized its fair value determination of the assets acquired and the liabilities assumed. The following table summarizes the provisional and final allocations of the purchase price to the fair values assigned to the assets acquired and liabilities assumed at the date of the acquisition date and as adjusted as of June 27, 2020, respectively:

<i>(In thousands):</i>	As of January 10, 2020		As of June 27, 2020	
Trade accounts and note receivable, net	\$	1,189	\$	1,189
Inventories, net		1,010		1,010
Other current assets		8		8
Property, plant and equipment		63		63
Identifiable intangible assets		41,680		41,680
Right-of-use assets		1,712		1,712
Deferred tax asset		—		102
Accounts payable and accrued liabilities		(58)		(58)
Short-term lease liability		(150)		(150)
Long-term lease liability		(1,562)		(1,562)
Net assets acquired		<u>43,892</u>		<u>43,994</u>
Goodwill		31,751		31,651
Total purchase price, net of cash acquired	<u>\$</u>	<u>75,643</u>	<u>\$</u>	<u>75,645</u>

The Company recognized the following finite-lived intangible assets as part of the acquisition of Sinmat:

<i>(In thousands)</i>	Amount	Weighted average life in years
Developed technology	\$ 7,650	7.0
Trademarks and trade names	130	1.3
Customer relationships	33,900	15.0
	<u>\$ 41,680</u>	13.5

4. INVENTORIES

Inventories consist of the following:

<i>(In thousands)</i>	October 2, 2021	December 31, 2020
Raw materials	\$ 162,314	\$ 97,319
Work-in process	42,538	32,316
Finished goods	224,164	194,309
Total inventories, net	<u>\$ 429,016</u>	<u>\$ 323,944</u>

5. GOODWILL AND INTANGIBLE ASSETS

Goodwill activity for each of the Company's reportable segments that carry goodwill, Specialty Chemicals and Engineered Materials ("SCEM"), Microcontamination Control ("MC") and Advanced Materials Handling ("AMH"), for each period was as follows:

<i>(In thousands)</i>	Specialty Chemicals and Engineered Materials	Microcontamination Control	Advanced Materials Handling	Total
December 31, 2020	\$ 427,713	\$ 247,154	\$ 73,170	\$ 748,037
Addition due to acquisitions	—	—	932	932
Foreign currency translation	357	607	—	964
October 2, 2021	<u>\$ 428,070</u>	<u>\$ 247,761</u>	<u>\$ 74,102</u>	<u>\$ 749,933</u>

Identifiable intangible assets at October 2, 2021 and December 31, 2020 consist of the following:

October 2, 2021			
<i>(In thousands)</i>	Gross carrying amount	Accumulated amortization	Net carrying value
Developed technology	\$ 284,294	\$ 229,840	\$ 54,454
Trademarks and trade names	30,127	19,864	10,263
Customer relationships	449,768	218,634	231,134
Other	20,396	13,760	6,636
	<u>\$ 784,585</u>	<u>\$ 482,098</u>	<u>\$ 302,487</u>

December 31, 2020			
<i>(In thousands)</i>	Gross carrying amount	Accumulated amortization	Net carrying value
Developed technology	\$ 283,272	\$ 221,651	\$ 61,621
Trademarks and trade names	30,100	18,374	11,726
Customer relationships	449,659	193,313	256,346
Other	20,396	12,457	7,939
	<u>\$ 783,427</u>	<u>\$ 445,795</u>	<u>\$ 337,632</u>

Future amortization expense during the remainder of 2021, each of the succeeding four years and thereafter relating to intangible assets currently recorded in the Company's condensed consolidated balance sheets is estimated to be the following at October 2, 2021:

<i>(In thousands)</i>	Remaining 2021	2022	2023	2024	2025	Thereafter	Total
Future amortization expense	\$ 12,272	47,735	47,047	34,433	27,900	133,100	\$ 302,487

6. DEBT

Long-term debt as of October 2, 2021 and December 31, 2020 consists of the following:

<i>(In thousands)</i>	October 2, 2021	December 31, 2020
Senior unsecured notes due 2029	\$ 400,000	\$ —
Senior unsecured notes due 2028	400,000	400,000
Senior secured term loan facility due 2025	145,000	145,000
Senior unsecured notes due 2026	—	550,000
	<u>945,000</u>	<u>1,095,000</u>
Unamortized discount and debt issuance costs	8,296	9,217
Total long-term debt	\$ 936,704	\$ 1,085,783

Annual maturities of long-term debt, excluding unamortized discount and issuance costs, due as of October 2, 2021 are as follows:

<i>(In thousands)</i>	2021	2022	2023	2024	2025	Thereafter	Total
Contractual debt obligation maturities*	\$ —	—	—	—	145,000	800,000	\$ 945,000

*Subject to Excess Cash Flow payments to the lenders.

2029 Senior Unsecured Notes

On April 30, 2021, the Company issued \$400 million aggregate principal amount of 3.625% senior unsecured notes due May 1, 2029 (the “2029 Notes”). The 2029 Notes were issued under an indenture dated as of April 30, 2021 (the “2029 Notes Indenture”) by and among the Company, certain subsidiaries of the Company and Wells Fargo Bank, National Association, as trustee (the “Trustee”). Interest on the 2029 Notes is payable semi-annually in arrears on May 1 and November 1 of each year, commencing on November 1, 2021. The Company incurred debt issuance costs of \$4.1 million in connection with the 2029 Notes. These costs are reported in the condensed consolidated balance sheet as a direct deduction from the face amount of the 2029 Notes.

The Company used the net proceeds of the offering, together with cash on hand and \$51 million borrowed under the Company’s senior secured revolving credit facility (the “Revolving Facility”), to pay the redemption price for the redemption in full of the \$550 million aggregate principal amount of senior unsecured notes due 2026 (the “2026 Notes”) and to pay certain fees and expenses related to the offering. In connection with the redemption of the 2026 Notes, the Company incurred a loss on extinguishment of debt of \$23.1 million, which is included in Other expense (income), net on the condensed consolidated statement of operations.

The 2029 Notes are guaranteed, jointly and severally, fully and unconditionally, on a senior unsecured basis, by the Company’s existing and future domestic subsidiaries, other than certain excluded subsidiaries, to the extent that such subsidiaries guarantee indebtedness under the Company’s senior secured term loan facility and Revolving Facility (together, the “Senior Secured Credit Facilities”) or the Company’s 4.375% senior unsecured notes due 2028 (the “2028 Notes”), and any other subsidiary of the Company, to the extent it incurs certain additional indebtedness (collectively, the “Guarantors”).

The 2029 Notes and the guarantees thereof are the Company’s and the Guarantors’ senior unsecured obligations, respectively, and will (i) rank equally in right of payment with all of the Company’s and the Guarantors’ existing and future senior indebtedness (including the 2028 Notes); (ii) rank senior to any subordinated indebtedness that the Company or the Guarantors may incur; (iii) be effectively subordinated to all of the Company’s or the Guarantors’ existing and future secured indebtedness (including the Senior Secured Credit Facilities), in each case, to the extent of the value of the assets securing such indebtedness; and (iv) be structurally subordinated in right of payment to all existing and future obligations of the Company’s subsidiaries that do not guarantee the 2029 Notes.

At any time prior to May 1, 2024, the Company may, at its option, on any one or more occasions, redeem up to 40% of the aggregate principal amount of the 2029 Notes, at a redemption price equal to 103.625% of the principal amount of the 2029 Notes redeemed, plus accrued and unpaid interest, if any, to, but not including, the date of redemption, with an amount of cash equal to the net cash proceeds of an equity offering, as defined in the 2029 Notes Indenture, by the Company; provided that (1) at least 60% of the aggregate principal amount of 2029 Notes issued under the 2029 Notes Indenture remains outstanding immediately after the occurrence of each such redemption; and (2) the redemption occurs within 120 days of the date of the closing of such equity offering.

Additionally, at any time prior to May 1, 2024, the 2029 Notes may be redeemed, in whole or in part, at the option of the Company, at a redemption price equal to 100% of the principal amount of the 2029 Notes redeemed, plus a “make whole” premium, plus accrued and unpaid interest, if any, to, but not including, the applicable redemption date.

On or after May 1, 2024, the Company may, on any one or more occasions, redeem all or a part of the 2029 Notes, at its option, at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest, if any, on the 2029 Notes redeemed, to, but not including, the applicable date of redemption, if redeemed during the 12-month period beginning on May 1 of the years indicated below:

Year	Percentage
2024	102.719 %
2025	101.813 %
2026	100.906 %
2027 and thereafter	100.000 %

Upon the occurrence of certain change of control events accompanied by certain ratings events, the Company will be required to offer to repurchase all of the outstanding 2029 Notes at a purchase price of 101% of the principal amount thereof, plus accrued and unpaid interest, if any, to, but not including, the date of repurchase.

The 2029 Notes Indenture contains covenants that, among other things, limit the Company’s ability and/or the ability of the Company’s subsidiaries to:

- incur liens;
- engage in sales-and-leaseback transactions; and
- consolidate, merge with or convey, transfer or lease all or substantially all of the Company’s and its subsidiaries’ assets to another person.

The 2029 Notes Indenture also, subject to certain exceptions, limits the ability of any non-Guarantor subsidiary of the Company to incur indebtedness. These covenants are subject to a number of other limitations and exceptions as set forth in the 2029 Notes Indenture. The Company was in compliance with all of the above covenants at October 2, 2021.

The 2029 Notes Indenture provides for events of default which, if certain of them occur, would permit the Trustee or the holders of at least 25% in aggregate principal amount of the then-outstanding 2029 Notes to declare the principal of, and interest or premium, if any, and any other monetary obligations on, all the then-outstanding 2029 Notes to be due and payable immediately.

Amendment of Revolving Facility

In connection with its issuance of the 2029 Notes, the Company amended the Revolving Facility to provide for, among other things, lending commitments in an aggregate principal amount of up to \$400.0 million, up from \$300.0 million, and to extend the maturity to April 30, 2026 from November 6, 2023.

7. EARNINGS PER COMMON SHARE

Basic earnings per common share (“EPS”) is calculated based on the weighted average number of shares of common stock outstanding during the period. Diluted earnings per common share is calculated based on the weighted average number of shares of common stock outstanding plus potentially dilutive shares of common stock outstanding during the period. The following table presents a reconciliation of the share amounts used in the computation of basic and diluted earnings per common share:

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Basic—weighted common shares outstanding	135,583	134,957	135,383	134,801
Weighted common shares assumed upon exercise of stock options and vesting of restricted common stock	1,048	1,295	1,173	1,408
Diluted—weighted common shares and common shares equivalent outstanding	136,631	136,252	136,556	136,209

The Company excluded the following shares underlying stock-based awards from the calculations of diluted EPS because their inclusion would have been anti-dilutive for the three and nine months ended October 2, 2021 and September 26, 2020:

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Shares excluded from calculations of diluted EPS	148	223	149	245

8. OTHER EXPENSE (INCOME), NET

Other expense (income), net for the three and nine months ended October 2, 2021 and September 26, 2020 consists of the following:

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Loss (gain) on foreign currency transactions	\$ 1,919	\$ (2,881)	\$ 6,281	\$ (4,213)
Loss on extinguishment of debt and modification	—	908	23,338	2,378
Other, net	(2)	221	188	484
Other expense (income), net	\$ 1,917	\$ (1,752)	\$ 29,807	\$ (1,351)

9. LEASES

As of October 2, 2021, the Company was obligated under operating lease agreements for certain sales offices and manufacturing facilities, manufacturing equipment, vehicles, information technology equipment and warehouse space. As of October 2, 2021, the Company does not have material finance leases. The Company's leases have remaining lease terms of 1 year to 20 years, some of which may include options to extend the lease for up to 6 years, and some of which may include options to terminate the leases within 1 year.

As of October 2, 2021 and December 31, 2020, the Company's operating lease components with initial or remaining terms in excess of one year were classified on the condensed consolidated balance sheet as follows, together with certain supplemental balance sheet information:

<i>(In thousands, except lease term and discount rate)</i>	Classification	October 2, 2021	December 31, 2020
Assets			
Right-of-use assets	Right-of-use assets	\$ 56,990	\$ 45,924
Liabilities			
Short-term lease liability	Other accrued liabilities	8,689	9,960
Long-term lease liability	Long-term lease liability	52,486	39,730
Total lease liabilities		\$ 61,175	\$ 49,690
Lease Term and Discount Rate			
Weighted average remaining lease term (years)		9.8	7.9
Weighted average discount rate		4.5 %	5.0 %

Expense for leases less than 12 months for the three and nine months ended October 2, 2021 and September 26, 2020 were not material. The components of lease expense for the three and nine months ended October 2, 2021 and September 26, 2020 are as follows:

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Operating lease cost	\$ 3,501	\$ 3,421	\$ 10,309	\$ 10,073

The Company combines the amortization of the right-of-use assets and the change in the operating lease liability in the same line item in the condensed consolidated statement of cash flows. Other information related to the Company's operating leases for the nine months ended October 2, 2021 and September 26, 2020 are as follows:

<i>(In thousands)</i>	October 2, 2021		September 26, 2020	
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from leases	\$	8,318	\$	8,049
Right-of-use assets obtained in exchange for lease obligations:				
Operating leases	\$	20,963	\$	3,132

Future minimum lease payments for noncancellable operating leases as of October 2, 2021, were as follows:

<i>(In thousands)</i>	Operating Leases	
Remaining 2021	\$	3,217
2022		10,460
2023		8,676
2024		7,202
2025		6,408
Thereafter		40,511
Total		76,474
Less: Interest		15,299
Present value of lease liabilities	\$	61,175

10. SEGMENT REPORTING

The Company's financial segment reporting reflects an organizational alignment intended to leverage the Company's unique breadth of capabilities to create mission-critical microcontamination control products, specialty chemicals and advanced materials handling solutions that maximize manufacturing yields, reduce manufacturing costs and enable higher device performance for its customers. While these segments have separate products and technical know-how, they share common business systems and processes, technology centers, and strategic and technology roadmaps. The Company leverages its expertise from these three segments to create new and increasingly integrated solutions for its customers. The Company's business is reported in the following segments:

- **Specialty Chemicals and Engineered Materials:** SCEM provides high-performance and high-purity process chemistries, gases and materials and safe and efficient delivery systems to support semiconductor and other advanced manufacturing processes.
- **Microcontamination Control:** MC offers solutions to filter and purify critical liquid chemistries and gases used in semiconductor manufacturing processes and other high-technology industries.
- **Advanced Materials Handling:** AMH develops solutions to monitor, protect, transport and deliver critical liquid chemistries, wafers, and other substrates for a broad set of applications in the semiconductor, life sciences and other high-technology industries.

Summarized financial information for the Company's reportable segments is shown in the following tables.

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Net sales				
SCEM	\$ 176,380	\$ 150,480	\$ 523,287	\$ 440,907
MC	225,877	193,541	660,497	536,560
AMH	186,200	144,370	507,243	386,941
Inter-segment elimination	(8,964)	(7,404)	(27,338)	(22,689)
Total net sales	\$ 579,493	\$ 480,987	\$ 1,663,689	\$ 1,341,719

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Segment profit				
SCEM	\$ 41,091	\$ 32,600	\$ 120,592	\$ 98,208
MC	78,399	64,915	227,097	177,219
AMH	40,503	33,266	114,691	76,707
Total segment profit	<u>\$ 159,993</u>	<u>\$ 130,781</u>	<u>\$ 462,380</u>	<u>\$ 352,134</u>

The following table reconciles total segment profit to income before income tax expense:

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Total segment profit	\$ 159,993	\$ 130,781	\$ 462,380	\$ 352,134
Less:				
Amortization of intangible assets	11,843	11,749	35,616	41,176
Unallocated general and administrative expenses	8,793	12,271	34,540	28,741
Operating income	139,357	106,761	392,224	282,217
Interest expense	9,395	12,781	31,744	36,345
Interest income	(56)	(130)	(181)	(664)
Other expense (income), net	1,917	(1,752)	29,807	(1,351)
Income before income tax expense	<u>\$ 128,101</u>	<u>\$ 95,862</u>	<u>\$ 330,854</u>	<u>\$ 247,887</u>

In the following tables, revenue is disaggregated by customers' country or region for the three and nine months ended October 2, 2021 and September 26, 2020, respectively.

<i>(In thousands)</i>	Three months ended October 2, 2021				
	SCEM	MC	AMH	Inter-segment	Total
North America	\$ 52,551	\$ 35,828	\$ 60,350	\$ (8,964)	\$ 139,765
Taiwan	29,371	57,806	26,615	—	113,792
China	25,316	35,003	23,975	—	84,294
South Korea	23,655	24,763	28,487	—	76,905
Japan	21,639	42,440	13,701	—	77,780
Europe	13,251	17,583	26,041	—	56,875
Southeast Asia	10,597	12,454	7,031	—	30,082
	<u>\$ 176,380</u>	<u>\$ 225,877</u>	<u>\$ 186,200</u>	<u>\$ (8,964)</u>	<u>\$ 579,493</u>

<i>(In thousands)</i>	Three months ended September 26, 2020				
	SCEM	MC	AMH	Inter-segment	Total
North America	\$ 45,921	\$ 47,803	\$ 47,748	\$ (7,404)	\$ 134,068
Taiwan	26,651	37,602	18,105	—	82,358
China	20,334	29,150	16,828	—	66,312
South Korea	22,389	21,780	30,201	—	74,370
Japan	18,487	30,386	11,882	—	60,755
Europe	8,111	18,237	12,903	—	39,251
Southeast Asia	8,587	8,583	6,703	—	23,873
	<u>\$ 150,480</u>	<u>\$ 193,541</u>	<u>\$ 144,370</u>	<u>\$ (7,404)</u>	<u>\$ 480,987</u>

	Nine months ended October 2, 2021				
<i>(In thousands)</i>	SCEM	MC	AMH	Inter-segment	Total
North America	\$ 156,290	\$ 106,568	\$ 161,792	\$ (27,338)	\$ 397,312
Taiwan	85,350	155,830	79,286	—	320,466
China	71,197	118,595	70,418	—	260,210
South Korea	73,893	83,725	73,769	—	231,387
Japan	68,778	114,654	37,875	—	221,307
Europe	36,300	44,562	63,171	—	144,033
Southeast Asia	31,479	36,563	20,932	—	88,974
	<u>\$ 523,287</u>	<u>\$ 660,497</u>	<u>\$ 507,243</u>	<u>\$ (27,338)</u>	<u>\$ 1,663,689</u>

	Nine months ended September 26, 2020				
<i>(In thousands)</i>	SCEM	MC	AMH	Inter-segment	Total
North America	\$ 137,594	\$ 109,937	\$ 121,147	\$ (22,689)	\$ 345,989
Taiwan	78,079	122,443	65,240	—	265,762
China	54,159	75,709	41,505	—	171,373
South Korea	63,636	64,861	66,398	—	194,895
Japan	53,819	88,512	34,257	—	176,588
Europe	25,465	49,526	37,216	—	112,207
Southeast Asia	28,155	25,572	21,178	—	74,905
	<u>\$ 440,907</u>	<u>\$ 536,560</u>	<u>\$ 386,941</u>	<u>\$ (22,689)</u>	<u>\$ 1,341,719</u>

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of the Company's condensed consolidated financial condition and results of operations should be read along with the condensed consolidated financial statements and the accompanying notes thereto included elsewhere in this Quarterly Report on Form 10-Q. The information, except for historical information, contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q includes forward-looking statements that involve risks and uncertainties. You should review the section entitled "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2020 as well as in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q. The Company assumes no obligation to publicly release the results of any revision or updates to these forward-looking statements to reflect future events or unanticipated occurrences.

Overview

This overview is not a complete discussion of the Company's financial condition, changes in financial condition or results of operations; it is intended merely to facilitate an understanding of the most salient aspects of the Company's financial condition and operating performance and to provide a context for the detailed discussion and analysis that follows. The discussion and analysis must be read in its entirety in order to fully understand the Company's financial condition and results of operations.

The Company is a leading supplier of advanced materials and process solutions for the semiconductor and other high-technology industries. Our mission is to help our customers improve their productivity, performance and technology by providing solutions for the most advanced manufacturing environments. We leverage our unique breadth of capabilities to create mission-critical microcontamination control products, specialty chemicals and advanced materials handling solutions that maximize manufacturing yields, reduce manufacturing costs and enable higher device performance for our customers.

Our customized materials solutions enable the highest levels of performance essential to the manufacture of semiconductors. As our customers introduce more complex architectures and search for new materials with better electrical and structural properties to improve the performance of their devices, they rely on Entegris as a trusted partner to address these challenges. We understand these challenges and have solutions to address them, such as our advanced deposition materials, implant gases, formulated cleaning chemistries and selective etch chemistries. Our customers also require greater end-to-end materials purity and integrity in their manufacturing processes that, when combined with smaller dimensions and more complex architectures, can be challenging to achieve. To enable the use of new metals and the further miniaturization of chips, and to maximize yield and increase long-term device reliability, we provide products such as our advanced liquid and gas filtration and purification products that help to selectively remove new classes of contaminants throughout the semiconductor supply chain. In addition, to ensure purity levels are maintained across the entire supply chain, from bulk manufacturing, to transportation to and delivery through a fab, to application onto the wafer, we provide high-purity packaging and materials handling products.

Our business is organized and operated in three operating segments, which align with the key elements of the advanced semiconductor manufacturing ecosystem. The Specialty Chemicals and Engineered Materials segment, or SCEM, provides high-performance and high-purity process chemistries, gases and materials, and safe and efficient delivery systems, to support semiconductor and other advanced manufacturing processes. The Microcontamination Control segment, or MC, offers solutions to filter and purify critical liquid chemistries and gases used in semiconductor manufacturing processes and other high-technology industries. The Advanced Materials Handling segment, or AMH, develops solutions to monitor, protect, transport and deliver critical liquid chemistries, wafers and other substrates for a broad set of applications in the semiconductor, life sciences and other high-technology industries. While these segments have separate products and technical know-how, they share common business systems and processes, technology centers and strategic and technology roadmaps. With the technology, capabilities and complementary product portfolios from these segments, we believe we are uniquely positioned to collaborate across divisions to create new, co-optimized and increasingly integrated solutions for our customers. For example, our SCEM segment offers a highly selective nitride etch chemistry, our MC segment provides a liquid filter that is specifically matched to that formulation and our AMH segment ensures the integrity of the product as it is moved to and through the fab environment. See note 10 to the condensed consolidated financial statements for additional information on the Company's three segments.

The Company's fiscal year is the calendar period ending each December 31. The Company's fiscal quarters consist of 13-week or 14-week periods that end on a Saturday. The Company's fiscal quarters in 2021 end April 3, 2021, July 3, 2021, October 2, 2021 and December 31, 2021.

Key operating factors Key factors that management believes have the largest impact on the overall results of operations of the Company include:

- **Level of sales** Since a significant portion of the Company's product costs (except for raw materials, purchased components and direct labor) are largely fixed in the short-to-medium term, an increase or decrease in sales affects gross profits and overall profitability significantly. Also, increases or decreases in sales and operating profitability affect certain costs such as incentive compensation and commissions, which are highly variable in nature. The

Company's sales are subject to the effects of industry cyclicality, technological change, substantial competition, pricing pressures and foreign currency fluctuations.

- **Variable margin on sales** The Company's variable margin on sales is determined by selling prices and the costs of manufacturing and raw materials. This is affected by a number of factors, which include the Company's sales mix, purchase prices of raw materials (especially polymers, membranes, stainless steel and purchased components), domestic and international competition, direct labor costs and the efficiency of the Company's production operations, among others.
- **Fixed cost structure** The Company's operations include a number of large fixed or semi-fixed cost components, which include salaries, indirect labor and benefits, facility costs, lease expenses and depreciation and amortization. It is not possible to vary these costs easily in the short-term as volumes fluctuate. Accordingly, increases or decreases in sales volume can have a large effect on the usage and productivity of these cost components, resulting in a large impact on the Company's profitability.

Impact of COVID-19 on our Business

The COVID-19 pandemic continues to impact the global economy and cause significant macroeconomic uncertainty. Infection rates vary across the countries in which we operate. Governmental authorities have continued to implement numerous and constantly evolving measures to try to contain the virus, such as travel bans and restrictions, masking recommendations and mandates, vaccine recommendations and mandates, limits on gatherings, quarantines, shelter-in-place orders and business shutdowns. We have taken proactive, aggressive action to protect the health and safety of our employees, customers, partners and suppliers, consistent with the latest and evolving governmental guidelines. We expect to continue to implement appropriate measures until the COVID-19 pandemic is adequately contained. We continue to monitor the rapidly evolving situation and guidance from international and domestic authorities, including federal, state and local public health authorities, and may take additional actions based on their recommendations and requirements or as we otherwise see fit to protect the health and safety of our employees, customers, partners and suppliers.

While certain of our operations have from time-to-time been temporarily affected by government-mandated restrictions, to date we have not experienced significant adverse impacts to our global operations as a result of the COVID-19 pandemic. Broader impacts of the pandemic have included a more dynamic supply chain and global logistics environment, and we have experienced instances of raw material constraints, higher freight costs and delivery delays in both inbound shipments of raw materials and outgoing shipments of finished products to customers. While we continue to focus on mitigating risks to our operations and supply chain in the current industry environment, we expect some of the foregoing challenges to linger. From a demand perspective, during the third quarter of 2021 we continued to see strong demand for our leading-edge products, largely driven by accelerated digitalization, 5G applications and high-performance computing.

In the current circumstances, given the dynamic nature of the situation, any impact on our financial condition, results of operations or cash flows in the future continues to be difficult to estimate and predict, as it depends on future events that are highly uncertain and cannot be predicted with accuracy, including, but not limited to, the duration and continued spread of the outbreak, its severity, potential additional waves of infection, the emergence of more virulent or more dangerous strains of the virus, the actions taken to mitigate the virus or its impact, the development, distribution, efficacy and acceptance of vaccines worldwide, how quickly and to what extent normal economic and operating conditions can resume, the broader impact that the pandemic is having on the economy and our industry and specific implications the pandemic may have on our suppliers and on global logistics. See Item 1A, "Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2020 for additional information regarding risks associated with the COVID-19 pandemic, including under the caption "The COVID-19 pandemic and ensuing governmental responses could materially adversely affect our financial condition and results of operations."

Overall Summary of Financial Results

For the three months ended October 2, 2021, net sales increased 20% to \$579.5 million, compared to \$481.0 million for the three months ended September 26, 2020. Total net sales increased primarily as a result of strong growth across all three segments, as we benefited from robust industry conditions and record demand for our products and solutions. Net sales for the three months ended October 2, 2021 included sales of \$0.7 million from acquired businesses and favorable foreign currency translation effects of \$0.2 million.

The Company experienced a 45.6% gross margin for the three months ended October 2, 2021, compared to 47.0% in the comparable year-ago period. The gross margin decrease was primarily due to an unfavorable sales mix and higher materials, labor and freight costs, partially offset by higher sales levels.

As a result of the aforementioned factors, the Company reported net income of \$117.5 million, or \$0.86 per diluted share, for the quarter ended October 2, 2021, compared to net income of \$79.3 million, or \$0.58 per diluted share, a year ago.

Cash and cash equivalents were \$475.8 million at October 2, 2021, compared with \$580.9 million at December 31, 2020. The Company had outstanding long-term debt (excluding current maturities) of \$936.7 million at October 2, 2021, compared to \$1,085.8 million at December 31, 2020.

Critical Accounting Policies

Management's discussion and analysis of financial condition and results of operations are based upon the Company's condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these condensed consolidated financial statements requires the Company to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions.

The critical accounting policies affected most significantly by estimates, assumptions and judgments used in the preparation of the Company's condensed consolidated financial statements are described in Item 7 of its Annual Report on Form 10-K for the year ended December 31, 2020, filed with the Securities and Exchange Commission on February 5, 2021. On an ongoing basis, the Company evaluates the critical accounting policies used to prepare its condensed consolidated financial statements, including, but not limited to, those related to business acquisitions. There have been no material changes in these aforementioned critical accounting policies.

Three and Nine Months Ended October 2, 2021 Compared to Three and Nine Months Ended September 26, 2020

The following table compares operating results for the three and nine months ended October 2, 2021 and September 26, 2020, both in dollars and as a percentage of net sales, for each caption.

<i>(Dollars in thousands)</i>	Three months ended				Nine months ended			
	October 2, 2021		September 26, 2020		October 2, 2021		September 26, 2020	
Net sales	\$ 579,493	100.0 %	\$ 480,987	100.0 %	\$ 1,663,689	100.0 %	\$ 1,341,719	100.0 %
Cost of sales	315,289	54.4	254,987	53.0	899,115	54.0	722,869	53.9
Gross profit	264,204	45.6	226,000	47.0	764,574	46.0	618,850	46.1
Selling, general and administrative expenses	71,032	12.3	71,195	14.8	215,042	12.9	196,958	14.7
Engineering, research and development expenses	41,972	7.2	36,295	7.5	121,692	7.3	98,499	7.3
Amortization of intangible assets	11,843	2.0	11,749	2.4	35,616	2.1	41,176	3.1
Operating income	139,357	24.0	106,761	22.2	392,224	23.6	282,217	21.0
Interest expense	9,395	1.6	12,781	2.7	31,744	1.9	36,345	2.7
Interest income	(56)	—	(130)	—	(181)	—	(664)	—
Other expense (income), net	1,917	0.3	(1,752)	(0.4)	29,807	1.8	(1,351)	(0.1)
Income before income taxes	128,101	22.1	95,862	19.9	330,854	19.9	247,887	18.5
Income tax expense	10,640	1.8	16,559	3.4	39,947	2.4	39,542	2.9
Net income	\$ 117,461	20.3 %	\$ 79,303	16.5 %	\$ 290,907	17.5 %	\$ 208,345	15.5 %

Net sales For the three months ended October 2, 2021, net sales increased by 20% to \$579.5 million, compared to \$481.0 million for the three months ended September 26, 2020. An analysis of the factors underlying the increase in net sales is presented in the following table:

<i>(In thousands)</i>	
Net sales in the quarter ended September 26, 2020	\$ 480,987
Increase mainly associated with volume	97,650
Increase associated with effect of foreign currency translation	161
Increase associated with acquired businesses	695
Net sales in the quarter ended October 2, 2021	\$ 579,493

Total net sales increased primarily as a result of strong growth across all three divisions, as we benefited from robust industry conditions and record demand for our products and solutions. Total net sales also reflected favorable foreign currency translation effects of \$0.2 million and net sales associated with recent acquisitions of \$0.7 million.

On a geographic basis, sales percentage by customers' country or region for the three months ended October 2, 2021 and September 26, 2020 and the percentage increase in sales for the three months ended October 2, 2021 compared to the sales for the three months ended September 26, 2020 were as follows:

	Three months ended		Percentage increase in sales
	October 2, 2021	September 26, 2020	
North America	24 %	28 %	4 %
Taiwan	20 %	17 %	38 %
China	15 %	14 %	27 %
South Korea	13 %	15 %	3 %
Japan	13 %	13 %	28 %
Europe	10 %	8 %	45 %
Southeast Asia	5 %	5 %	26 %

The increase in sales to customers in North America primarily relates to higher sales of Advanced Materials Handling products of 26% and Specialty Chemicals and Engineering Materials products of 14%, partially offset by lower sales of Microcontamination Control products of 25%. The increase in sales to customers in Taiwan, China and Southeast Asia was primarily driven by a general increase in demand for products in all three of the Company's segments. The increase in sales in Japan primarily relates to higher sales of Microcontamination Control products. The increase in sales in Europe primarily relates to higher sales of Advanced Materials Handling products.

Net sales for the nine months ended October 2, 2021 were \$1,663.7 million, up 24% from \$1,341.7 million in the comparable year-ago period. An analysis of the factors underlying the increase in net sales is presented in the following table:

(In thousands)

Net sales in the nine months ended September 26, 2020	\$ 1,341,719
Increase mainly associated with volume	305,097
Increase associated with effect of foreign currency translation	9,496
Increase associated with acquired businesses	7,377
Net sales in the nine months ended October 2, 2021	<u>\$ 1,663,689</u>

The Company's sales growth was strong across all three divisions, as we benefited from robust industry conditions and record demand for our products and solutions. Total net sales also reflected favorable foreign currency translation effects of \$9.5 million and net sales associated with recent acquisitions of \$7.4 million.

On a geographic basis, sales percentage by customers' country or region for the nine months ended October 2, 2021 and September 26, 2020 and the percentage increase in sales for the nine months ended October 2, 2021 compared to the sales for the nine months ended September 26, 2020 were as follows:

	Nine months ended		Percentage increase in sales
	October 2, 2021	September 26, 2020	
North America	24 %	26 %	15 %
Taiwan	19 %	20 %	21 %
South Korea	14 %	15 %	19 %
Japan	13 %	13 %	25 %
China	16 %	13 %	52 %
Europe	9 %	8 %	28 %
Southeast Asia	5 %	6 %	19 %

The increase in sales to customers in North America primarily relates to higher sales of Microcontamination Control products. The increase in sales to customers in Taiwan, South Korea, Japan and China was primarily driven by a general increase in demand for products in all three of the Company's segments. The increase in sales from Europe primarily relates to higher sales of Advanced Materials Handling products. The increase in sales from Southeast Asia primarily relates to higher sales of Microcontamination Control products.

Gross margin The following table sets forth gross margin as a percentage of net revenues:

	Three months ended			Nine months ended		
	October 2, 2021	September 26, 2020	Percentage point change	October 2, 2021	September 26, 2020	Percentage point change
Gross margin as a percentage of net revenues:	45.6 %	47.0 %	(1.4)	46.0 %	46.1 %	(0.1)

Gross margin decreased by 1.4 and 0.1 percentage points for the three and nine months ended October 2, 2021, respectively, compared to the same periods in the prior year, primarily due to an unfavorable sales mix and higher materials, labor and freight costs, partially offset by higher sales levels.

Selling, general and administrative expenses Selling, general and administrative, or SG&A, expenses were \$71.0 million in the three months ended October 2, 2021, compared to \$71.2 million in the year-ago period. An analysis of the factors underlying the change in SG&A expenses is presented in the following table:

(In thousands)

Selling, general and administrative expenses in the quarter ended September 26, 2020	\$ 71,195
Employee costs	2,371
Other decreases, net	(2,534)
Selling, general and administrative expenses in the quarter ended October 2, 2021	<u>\$ 71,032</u>

SG&A expenses were \$215.0 million for the first nine months of 2021, representing a 9% increase compared to SG&A expenses of \$197.0 million in the year-ago period. An analysis of the factors underlying changes in SG&A is presented in the following table:

(In thousands)

Selling, general and administrative expenses in the nine months ended September 26, 2020	\$ 196,958
Employee costs	21,424
Other decreases, net	(3,340)
Selling, general and administrative expenses in the nine months ended October 2, 2021	<u>\$ 215,042</u>

Engineering, research and development expenses The Company's engineering, research and development, or ER&D, efforts focus on the support or extension of current product lines and the development of new products and manufacturing technologies. ER&D expenses increased 16% to \$42.0 million in the three months ended October 2, 2021 compared to \$36.3 million in the year-ago period. An analysis of the factors underlying the increase in ER&D expenses is presented in the following table:

(In thousands)

Engineering, research and development expenses in the quarter ended September 26, 2020	\$ 36,295
Employee costs	2,963
Project materials	2,186
Other increases, net	528
Engineering, research and development expenses in the quarter ended October 2, 2021	<u>\$ 41,972</u>

ER&D expenses increased 24% to \$121.7 million in the first nine months of 2021, compared to \$98.5 million in the year-ago period. An analysis of the factors underlying the increase in ER&D expenses is presented in the following table:

(In thousands)

Engineering, research and development expenses in the nine months ended September 26, 2020	\$ 98,499
Employee costs	12,820
Project materials	7,773
Other increases, net	2,600
Engineering, research and development expenses in the nine months ended October 2, 2021	<u>\$ 121,692</u>

Amortization expenses Amortization of intangible assets was \$11.8 million in the three months ended October 2, 2021, compared to \$11.7 million for the three months ended September 26, 2020. The increase primarily reflects additional amortization expense associated with recent acquisitions.

Amortization of intangible assets was \$35.6 million in the nine months ended October 2, 2021, compared to \$41.2 million for the nine months ended September 26, 2020. The decrease primarily reflects the elimination of amortization expense of \$6.7

million for acquired identifiable intangible assets that became fully amortized in previous periods, partially offset by additional amortization expense of \$1.3 million associated with recent acquisitions.

Interest expense Interest expense includes interest associated with debt outstanding and the amortization of debt issuance costs associated with such borrowings. Interest expense was \$9.4 million in the three months ended October 2, 2021, compared to \$12.8 million in the three months ended September 26, 2020. The decrease primarily reflects lower average debt levels and interest rates.

Interest expense was \$31.7 million in the nine months ended October 2, 2021, compared to \$36.3 million in the nine months ended September 26, 2020. The decrease reflects lower average debt levels and interest rates.

Interest income Interest income of \$0.1 million in the three months ended October 2, 2021 was flat compared to \$0.1 million in the three months ended September 26, 2020.

Interest income was \$0.2 million in the nine months ended October 2, 2021, compared to \$0.7 million in the nine months ended September 26, 2020. The decrease reflects lower average interest rates and cash levels.

Other expense (income), net Other expense, net was \$1.9 million in the three months ended October 2, 2021 and consisted mainly of foreign currency transaction losses of \$1.9 million. Other income, net was \$1.8 million in the three months ended September 26, 2020 and consisted mainly of foreign currency transaction gains of \$2.9 million, partially offset by loss on debt extinguishment costs of \$0.9 million associated with payments on the Company's senior secured term loan facility due 2025, or the Term Loan Facility.

Other expense, net was \$29.8 million in the nine months ended October 2, 2021 and consisted mainly of a loss on extinguishment of debt of \$23.1 million associated with the redemption of the Company's \$550 million aggregate principal amount of senior unsecured notes due 2026, or the 2026 Notes (see note 6 to the Company's condensed consolidated financial statements), and foreign currency transaction losses of \$6.3 million. Other income, net was \$1.4 million in the nine months ended September 26, 2020 and consisted primarily of foreign currency transaction gains of \$4.2 million, partially offset by losses on debt extinguishment costs of \$2.4 million associated with payments on the Term Loan Facility.

Income tax expense Income tax expense was \$10.6 million and \$39.9 million in the three and nine months ended October 2, 2021, respectively, compared to income tax expense of \$16.6 million and \$39.5 million in the three and nine months ended September 26, 2020, respectively. The Company's year-to-date effective income tax rate at October 2, 2021 was 12.1%, compared to 16.0% at September 26, 2020.

The decrease in the year-to-date effective income tax rate from 2020 to 2021 primarily relates to the reversal of a valuation allowance on foreign tax credits generated during 2020 and 2021 of \$9.4 million, the recognition of a capital loss tax benefit of \$3.8 million recorded during the nine months ended October 2, 2021 and a decrease in the foreign effective tax rate due to a change in the foreign income mix. These benefits were offset in part by tax recorded on the sale of intangible property of \$3.5 million in the quarter ended July 3, 2021 and a valuation allowance of \$3.4 million on federal foreign tax credits recorded in the quarter ended September 26, 2020. Additionally, the income tax expense for the nine months ended October 2, 2021 and September 26, 2020 includes discrete benefits of \$13.1 million and \$12.0 million, respectively, recorded in connection with share-based compensation.

Net income Due to the factors noted above, the Company recorded net income of \$117.5 million, or \$0.86 per diluted share, in the three months ended October 2, 2021, compared to net income of \$79.3 million, or \$0.58 per diluted share, in the three months ended September 26, 2020. In the three months ended October 2, 2021, net income, as a percentage of net sales, increased to 20.3% from 16.5% in the year-ago period.

In the nine months ended October 2, 2021, the Company recorded net income of \$290.9 million, or \$2.13 per diluted share, compared to net income of \$208.3 million, or \$1.53 per diluted share, in the nine months ended September 26, 2020. In the nine months ended October 2, 2021, net income, as a percentage of net sales, increased to 17.5% from 15.5% in the year-ago period.

Non-GAAP Financial Measures The Company's condensed consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States, or GAAP. The Company also utilizes certain non-GAAP financial measures as a complement to financial measures provided in accordance with GAAP in order to better assess and reflect trends affecting the Company's business and results of operations. See the section entitled "Non-GAAP Information" below for additional detail, including the definition of certain non-GAAP financial measures and the reconciliation of these non-GAAP measures to the Company's GAAP measures.

The Company's principal non-GAAP financial measures are adjusted EBITDA and adjusted operating income, together with related measures thereof, and non-GAAP earnings per share.

Adjusted EBITDA increased 23% to \$175.5 million in the three months ended October 2, 2021, compared to \$142.4 million in the three months ended September 26, 2020. In the three months ended October 2, 2021, adjusted EBITDA, as a percentage of net sales, was flat at 30% compared to the year-ago period.

Adjusted EBITDA increased 27% to \$499.8 million in the nine months ended October 2, 2021, compared to \$394.1 million in the nine months ended September 26, 2020. In the nine months ended October 2, 2021, adjusted EBITDA, as a percentage of net sales, increased to 30% from 29% in the year-ago period.

Adjusted operating income increased 26% to \$152.7 million in the three months ended October 2, 2021, compared to \$121.6 million in the three months ended September 26, 2020. Adjusted operating income, as a percentage of net sales, increased to 26% from 25% in the year-ago period.

Adjusted operating income increased 30% to \$432.3 million in the nine months ended October 2, 2021, compared to \$332.1 million in the nine months ended September 26, 2020. In the nine months ended October 2, 2021, adjusted operating income, as a percentage of net sales, increased to 26% from 25% in the year-ago period.

Non-GAAP earnings per share increased 37% to \$0.92 in the three months ended October 2, 2021, compared to \$0.67 in the three months ended September 26, 2020. Non-GAAP earnings per share increased 35% to \$2.47 in the nine months ended September 26, 2020, compared to \$1.83 in the nine months ended September 26, 2020.

The increases in adjusted EBITDA, adjusted operating income and non-GAAP earnings per share for the three and nine months ended October 2, 2021 compared to the year-ago periods are generally attributable to the increases in sales and gross profit.

Segment Analysis

The Company reports its financial performance based on three reporting segments. The following is a discussion of the results of operations of these three business segments. See note 10 to the condensed consolidated financial statements for additional information on the Company's three segments.

The following table presents selected net sales and segment profit data for the Company's three reportable segments, along with unallocated general and administrative expenses, for the three and nine months ended October 2, 2021 and September 26, 2020.

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Specialty Chemicals and Engineered Materials				
Net sales	\$ 176,380	\$ 150,480	\$ 523,287	\$ 440,907
Segment profit	41,091	32,600	120,592	98,208
Microcontamination Control				
Net sales	\$ 225,877	\$ 193,541	\$ 660,497	\$ 536,560
Segment profit	78,399	64,915	227,097	177,219
Advanced Materials Handling				
Net sales	\$ 186,200	\$ 144,370	\$ 507,243	\$ 386,941
Segment profit	40,503	33,266	114,691	76,707
Unallocated general and administrative expenses	\$ 8,793	\$ 12,271	\$ 34,540	\$ 28,741

Specialty Chemicals and Engineered Materials (SCEM)

For the third quarter of 2021, SCEM net sales increased to \$176.4 million, up 17% compared to \$150.5 million in the comparable period last year. The sales increase was primarily due to increased sales of specialty gases and advanced deposition materials. SCEM reported a segment profit of \$41.1 million in the third quarter of 2021, up 26% from \$32.6 million in the year-ago period. The segment profit increase was primarily due to higher gross profit related to increased sales volume, partially offset by an 11% increase in operating expenses, primarily due to higher compensation costs.

For the nine months ended October 2, 2021, SCEM net sales increased to \$523.3 million, up 19% compared to \$440.9 million in the comparable period last year. The sales increase was mainly due to increased sales of specialty gases and advanced deposition materials. SCEM reported a segment profit of \$120.6 million in the nine months ended October 2, 2021, up 23% from \$98.2 million in the year-ago period also due to higher sales levels and a gain on a sale of non-core intangibles, partially offset by an 11% increase in operating expenses.

Microcontamination Control (MC)

For the third quarter of 2021, MC net sales increased to \$225.9 million, up 17% compared to \$193.5 million in the comparable period last year. The sales increase was mainly due to improved performance across substantially all platforms, with growth

especially strong in liquid filtration and gas microcontamination products. MC reported a segment profit of \$78.4 million in the third quarter of 2021, up 21% from \$64.9 million in the year-ago period. The segment profit improvement was primarily due to higher gross profit related to increased sales volume, partially offset by a 4% increase in operating expenses due to higher compensation costs.

For the nine months ended October 2, 2021, MC net sales increased to \$660.5 million, up 23% compared to \$536.6 million in the comparable period last year. The sales increase was mainly due to improved performance across substantially all platforms, with growth especially strong in liquid filtration and gas filtration products. MC reported a segment profit of \$227.1 million in the nine months ended October 2, 2021, up 28% from \$177.2 million in the year-ago period. The segment profit improvement was primarily due to higher gross profit related to the increased sales volume, partially offset by a 13% increase in operating expenses due to higher compensation costs.

Advanced Materials Handling (AMH)

For the third quarter of 2021, AMH net sales increased to \$186.2 million, up 29% compared to \$144.4 million in the comparable period last year. The sales increase was mainly due to improved sales from wafer handling, fluid handling and measurement products and sales of our Aramus high purity bags, as well as additional sales of \$0.7 million attributable to the Company's acquisition of Global Measurement Technologies, Inc., or GMTI. AMH reported a segment profit of \$40.5 million in the third quarter of 2021, up 22% from \$33.3 million in the year-ago period. The segment profit increase was primarily due to higher sales volume, partially offset by a 14% increase in operating expenses due to higher compensation costs.

For the nine months ended October 2, 2021, AMH net sales increased to \$507.2 million, up 31% compared to \$386.9 million in the comparable period last year. The sales increase was mainly due to improved sales from wafer handling, fluid handling and measurement products and sales of our Aramus high purity bags, as well as additional sales of \$6.8 million attributable to the acquisition of GMTI. AMH reported a segment profit of \$114.7 million in the nine months ended October 2, 2021, up 50% from \$76.7 million in the year-ago period. The segment profit increase was primarily due to higher sales volume, partially offset by a 16% increase in operating expenses, primarily due to higher compensation costs.

Unallocated general and administrative expenses

Unallocated general and administrative expenses totaled \$8.8 million in the third quarter of 2021, compared to \$12.3 million in the comparable period last year. The \$3.5 million decrease mainly reflects a \$2.0 million decrease in charitable donation costs and a \$1.0 million decrease in deal and integration costs from the comparable period last year.

Unallocated general and administrative expenses for the nine months ended October 2, 2021 totaled \$34.5 million, up from \$28.7 million in the nine months ended September 26, 2020. The \$5.8 million increase mainly reflects higher employee costs.

Liquidity and Capital Resources

We consider the following when assessing our liquidity and capital resources:

<i>In thousands</i>	October 2, 2021	December 31, 2020
Cash and cash equivalents	\$ 475,752	\$ 580,893
Working capital	966,292	931,631
Total debt	936,704	1,085,783

The Company has historically financed its operations and capital requirements through cash flow from its operating activities, long-term loans, lease financing and borrowings under domestic and international short-term lines of credit. On April 30, 2021, the Company issued \$400.0 million aggregate principal amount of 3.625% senior unsecured notes due May 1, 2029, or the 2029 Notes. The Company used the net proceeds of the offering, together with cash on hand and borrowings under the Company's senior secured revolving credit facility, or the Revolving Facility, to redeem all of the 2026 Notes. The redemption of the 2026 Notes resulted in a loss on extinguishment of debt of \$23.1 million. In connection with our issuance of the 2029 Notes, we amended the Revolving Facility to provide for, among other things, lending commitments in an aggregate principal amount of up to \$400.0 million (up from \$300.0 million) and to extend the maturity date to April 30, 2026.

Although there is uncertainty regarding the impact of the COVID-19 pandemic on our future results, we believe our business model, our current cash reserves and our balance sheet leave us well-positioned to manage our business through this crisis as we expect it to unfold. We have reviewed numerous potential scenarios in connection with the impact of COVID-19 on the global economy and the semiconductor industry. Based on our analysis, we believe our existing balances of domestic cash and cash equivalents and our currently anticipated operating cash flows will be sufficient to meet our cash needs arising in the ordinary course of business for the next twelve months and for the longer term.

We may seek to take advantage of opportunities to raise additional capital through additional debt financing or through public or private sales of securities. If in the future our available liquidity is not sufficient to meet the Company's operating and debt

service obligations as they come due, management would need to pursue alternative arrangements through additional equity or debt financing in order to meet the Company's cash requirements. There can be no assurance that any such financing would be available on commercially acceptable terms, or at all. To date, in fiscal 2021, we have not experienced difficulty accessing the capital and credit markets, but future volatility in the capital and credit markets may increase costs associated with issuing debt instruments or affect our ability to access those markets. In addition, it is possible that our ability to access the capital and credit markets could be limited at a time when we would like, or need, to do so, which could have an adverse impact on our ability to refinance maturing debt and/or react to changing economic and business conditions.

In summary, our cash flows for each period were as follows:

<i>(in thousands)</i>	Nine months ended	
	October 2, 2021	September 26, 2020
Net cash provided by operating activities	\$ 284,474	\$ 242,656
Net cash used in investing activities	(131,820)	(190,440)
Net cash (used in) provided by financing activities	(254,513)	44,352
(Decrease) increase in cash and cash equivalents	(105,141)	96,061

Operating activities Cash provided by operating activities is net income adjusted for certain non-cash items and changes in assets and liabilities. Cash flows provided by operating activities totaled \$284.5 million in the nine months ended October 2, 2021, compared to \$242.7 million in the nine months ended September 26, 2020. The increase in cash provided by operating activities was primarily due to higher net income, net of non-cash adjustments, including the loss on debt extinguishment and modifications, partially offset by the net change in working capital and other assets and liabilities. The net change in working capital and other assets and liabilities resulted in a decrease to cash provided by operating activities of \$153.0 million for the nine months ended October 2, 2021 compared to a decrease of \$118.6 million for the nine months ended September 26, 2020.

Changes in working capital and other assets and liabilities for the nine months ended October 2, 2021 were driven primarily by increases in inventories, accounts payable and income taxes payable. The change for inventory was driven by an increase in business activity. The change for accounts payable was due to timing of payments. The change for income taxes payable was primarily driven by higher income taxes paid.

Investing activities Cash flows used in investing activities totaled \$131.8 million in the nine months ended October 2, 2021, compared to \$190.4 million in the nine months ended September 26, 2020. The change resulted primarily from a reduction in cash paid for acquisitions of businesses, partially offset by higher cash paid for acquisition of property, plant and equipment.

Acquisition of property, plant and equipment totaled \$134.0 million in the nine months ended October 2, 2021, which primarily reflected investments in facilities, equipment and tooling, compared to \$79.6 million in the nine months ended September 26, 2020, which primarily reflected investments in equipment and tooling.

In the nine months ended October 2, 2021, the Company acquired a business for \$2.5 million, net of cash acquired. In the nine months ended September 26, 2020, the Company used cash to acquire the Sinmat business and GMTI for \$111.1 million, net of cash acquired. The transactions are described in further detail in note 3 to the Company's condensed consolidated financial statements.

As of October 2, 2021, the Company expects its full-year capital expenditures in 2021 to be approximately \$225.0 million for growth capacity investments and the initial phase of the previously announced investment in our new facility in Taiwan. As of October 2, 2021, the Company had outstanding capital purchase obligations of \$192.4 million for the construction or purchase of plant and equipment not yet recorded in the Company's condensed consolidated financial statements as the Company had not received the related goods or property as of such date.

Financing activities Cash used in financing activities totaled \$254.5 million during the nine months ended October 2, 2021, compared to cash provided by financing activities of \$44.4 million during the nine months ended September 26, 2020. The change was primarily due to a \$318.1 million increase in payments on long-term debt and debt extinguishment and a \$20.4 million increase in repurchase and retirement of common stock. The Company made a payment of \$569.1 million related to the redemption of the \$550.0 million aggregate principal amount of 2026 Notes during the nine months ended October 2, 2021, compared to a payment of \$251.0 million of outstanding borrowings under the Term Loan Facility in the nine months ended September 26, 2020. The increase in cash flows used in financing activities was offset in part by the absence of a \$16.1 million deferred acquisition payment related to our acquisition of Digital Specialty Chemicals in 2020, a \$13.0 million increase in proceeds from the issuance of common stock and a \$9.2 million decrease in taxes paid related to net share settlement of equity awards.

Our total dividend payments were \$32.7 million in the nine months ended October 2, 2021, compared to \$32.4 million in the nine months ended September 26, 2020. We have paid a cash dividend in each of the past 16 quarters. On October 13, 2021, the

Company's Board of Directors declared a quarterly cash dividend of \$0.08 per share to be paid on November 17, 2021 to shareholders of record on the close of business on October 27, 2021.

Other Liquidity and Capital Resources Considerations

On April 30, 2021, the Company issued \$400.0 million aggregate principal amount of the 2029 Notes. The Company used the net proceeds of the offering, together with cash on hand and borrowings under the Revolving Facility, to redeem all of the 2026 Notes. We capitalized \$4.1 million of third-party expenses related to the issuance of the 2029 as debt issuance costs. At October 2, 2021, we had \$400.0 million aggregate principal amount outstanding on the 2029 Notes.

The Company voluntarily redeemed its \$550.0 million aggregate principal amount of 2026 Notes at a redemption price of 103.469% (expressed as percentage of principal amount), plus accrued and unpaid interest of \$5.6 million. The redemption of the 2026 Notes resulted in a loss on extinguishment of debt of \$23.1 million.

In connection with our issuance of the 2029 Notes, we amended the Revolving Facility to provide for, among other things, lending commitments in an aggregate principal amount of up to \$400.0 million (up from \$300.0 million) and to extend the maturity date to April 30, 2026. The Revolving Facility bears interest at a rate per annum equal to, at the Company's option, either a base rate (such as prime rate) or LIBOR plus, in each case, an applicable margin. At October 2, 2021, there was no balance outstanding under the Revolving Facility and we had undrawn outstanding letters of credit of \$0.2 million.

The Company's Term Loan Facility matures on November 6, 2025 and bore interest at a rate per annum of 2.1% at October 2, 2021. As of October 2, 2021, the aggregate principal amount outstanding under the Term Loan Facility was \$145.0 million.

As of October 2, 2021, we had \$400.0 million aggregate principal amount of 4.375% senior unsecured notes due April 15, 2028 outstanding.

Through October 2, 2021, the Company was in compliance with all applicable financial covenants under its debt arrangements.

The Company also has a line of credit with one bank that provides for borrowings in Japanese yen for the Company's Japanese subsidiaries, equivalent to an aggregate of approximately \$9.0 million. There were no outstanding borrowings under this line of credit at October 2, 2021.

As of October 2, 2021, the Company's sources of available funds were its cash and cash equivalents of \$475.8 million, funds available under the Revolving Facility and international credit facilities and cash flow generated from operations. As of October 2, 2021, the amount of cash and cash equivalents held in certain of our foreign operations totaled approximately \$330.8 million. If we repatriate such funds, we may be required to pay income taxes in certain U.S. states and applicable foreign withholding taxes on those amounts during the period when such repatriation occurs. We have accrued taxes on any earnings that are not indefinitely reinvested. We estimate that no material withholding taxes would be incurred if any indefinitely reinvested earnings were distributed.

Off-Balance Sheet Arrangements

As of October 2, 2021, we did not have any off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Contractual Obligations

There have been no significant changes to the contractual obligations reported in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, except for long-term debt. On April 30, 2021, the Company issued \$400.0 million aggregate principal amount of 2029 Notes. On May 4, 2021, the Company redeemed the \$550.0 million aggregate principal amount of 2026 Notes. Refer to note 6 to the Company's condensed consolidated financial statements for a discussion of recent debt activity.

Recently adopted accounting pronouncements Refer to note 1 to the Company's condensed consolidated financial statements for a discussion of recently adopted accounting pronouncements.

Recently issued accounting pronouncements Refer to note 1 to the Company's condensed consolidated financial statements for a discussion of recently issued but not yet adopted accounting pronouncements.

Non-GAAP Information The Company's condensed consolidated financial statements are prepared in conformity with GAAP.

The Company also utilizes certain non-GAAP financial measures as a complement to financial measures provided in accordance with GAAP in order to better assess and reflect trends affecting the Company's business and results of operations. These non-GAAP financial measures include adjusted EBITDA and adjusted operating income, together with related measures thereof, and non-GAAP earnings per share, as well as certain other supplemental non-GAAP financial measures included in the discussion of the Company's financial results.

Adjusted EBITDA is defined by the Company as net income before, as applicable, (1) income tax expense, (2) interest expense, (3) interest income, (4) other expense (income), net, (5) charge for fair value write-up of acquired inventory sold, (6) deal and transaction costs, (7) integration costs, (8) severance and restructuring costs, (9) amortization of intangible assets and (10) depreciation. Adjusted operating income is defined by the Company as adjusted EBITDA exclusive of the depreciation addback noted above. The Company also utilizes non-GAAP financial measures whereby adjusted EBITDA and adjusted operating income are each divided by the Company's net sales to derive adjusted EBITDA margin and adjusted operating margin, respectively.

Non-GAAP EPS is defined by the Company as net income before, as applicable, (1) charge for fair value write-up of acquired inventory sold, (2) deal and transaction costs, (3) integration costs, (4) severance and restructuring costs, (5) loss on extinguishment of debt and modification, (6) amortization of intangible assets, (7) the tax effect of the foregoing adjustments to net income, stated on a per share basis and (8) tax effect of legal entity restructuring.

The Company provides supplemental non-GAAP financial measures to help management and investors to better understand its business and believes these measures provide investors and analysts additional and meaningful information for the assessment of the Company's ongoing results. Management also uses these non-GAAP measures to assist in the evaluation of the performance of the Company's business segments and to make operating decisions.

Management believes the Company's non-GAAP measures help indicate the Company's baseline performance before certain gains, losses or other charges that may not be indicative of the Company's business or future outlook and offer a useful view of business performance in that the measures provide a more consistent means of comparing performance. The Company believes the non-GAAP measures aid investors' overall understanding of the Company's results by providing a higher degree of transparency for such items and providing a level of disclosure that will help investors understand how management plans, measures and evaluates the Company's business performance. Management believes that the inclusion of non-GAAP measures provides greater consistency in its financial reporting and facilitates investors' understanding of the Company's historical operating trends by providing an additional basis for comparisons to prior periods.

Management uses adjusted EBITDA and adjusted operating income to assist it in evaluations of the Company's operating performance by excluding items that management does not consider as relevant in the results of its ongoing operations. Internally, these non-GAAP measures are used by management for planning and forecasting purposes, including the preparation of internal budgets; for allocating resources to enhance financial performance; for evaluating the effectiveness of operational strategies; and for evaluating the Company's capacity to fund capital expenditures, secure financing and expand its business.

In addition, and as a consequence of the importance of these non-GAAP financial measures in managing its business, the Company's Board of Directors uses non-GAAP financial measures in the evaluation process to determine management compensation.

The Company believes that certain analysts and investors use adjusted EBITDA, adjusted operating income and non-GAAP EPS as supplemental measures to evaluate the overall operating performance of firms in the Company's industry. Additionally, lenders or potential lenders use adjusted EBITDA measures to evaluate the Company's creditworthiness.

The presentation of non-GAAP financial measures is not meant to be considered in isolation, as a substitute for, or superior to, financial measures or information provided in accordance with GAAP. Management strongly encourages investors to review the Company's condensed consolidated financial statements in their entirety and to not rely on any single financial measure.

Management notes that the use of non-GAAP measures has limitations, including but not limited to:

First, non-GAAP financial measures are not standardized. Accordingly, the methodology used to produce the Company's non-GAAP financial measures is not computed under GAAP and may differ notably from the methodology used by other companies. For example, the Company's non-GAAP measure of adjusted EBITDA may not be directly comparable to EBITDA or an adjusted EBITDA measure reported by other companies.

Second, the Company's non-GAAP financial measures exclude items such as amortization and depreciation that are recurring. Amortization of intangibles and depreciation have been, and will continue to be for the foreseeable future, a significant recurring expense with an impact upon the Company's results of operations, notwithstanding the lack of immediate impact upon cash flows.

Third, there is no assurance that the Company will not have future charges for fair value write-up of acquired inventory, restructuring activities, deal costs, integration costs, or similar items and, therefore, may need to record additional charges (or credits) associated with such items, including the tax effects thereon. The exclusion of these items in the Company's non-GAAP measures should not be construed as an implication that these costs are unusual, infrequent or non-recurring.

Management considers these limitations by providing specific information regarding the GAAP amounts excluded from these non-GAAP financial measures and evaluating these non-GAAP financial measures together with their most directly comparable

financial measures calculated in accordance with GAAP. The calculations of adjusted EBITDA, adjusted operating income, and non-GAAP EPS, and reconciliations between these financial measures and their most directly comparable GAAP equivalents, are presented below in the accompanying tables.

Reconciliation of GAAP Net Income to Adjusted Operating Income and Adjusted EBITDA

<i>(In thousands)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Net sales	\$ 579,493	\$ 480,987	\$ 1,663,689	\$ 1,341,719
Net income	\$ 117,461	\$ 79,303	\$ 290,907	\$ 208,345
Net income - as a % of net sales	20.3 %	16.5 %	17.5 %	15.5 %
Adjustments to net income				
Income tax expense	10,640	16,559	39,947	39,542
Interest expense	9,395	12,781	31,744	36,345
Interest income	(56)	(130)	(181)	(664)
Other expense (income), net	1,917	(1,752)	29,807	(1,351)
GAAP – Operating income	139,357	106,761	392,224	282,217
Operating margin - as a % of net sales	24.0 %	22.2 %	23.6 %	21.0 %
Charge for fair value write-up of acquired inventory sold	—	229	—	590
Deal and transaction costs	—	642	—	2,576
Integration costs	1,290	1,260	3,966	1,663
Severance and restructuring costs	206	971	529	3,863
Amortization of intangible assets	11,843	11,749	35,616	41,176
Adjusted operating income	152,696	121,612	432,335	332,085
Adjusted operating margin - as a % of net sales	26.3 %	25.3 %	26.0 %	24.8 %
Depreciation	22,841	20,777	67,510	62,064
Adjusted EBITDA	\$ 175,537	\$ 142,389	\$ 499,845	\$ 394,149
Adjusted EBITDA – as a % of net sales	30.3 %	29.6 %	30.0 %	29.4 %

Reconciliation of GAAP Net Income and Earnings per Share to Non-GAAP Net Income and Earnings per Share

<i>(In thousands, except per share data)</i>	Three months ended		Nine months ended	
	October 2, 2021	September 26, 2020	October 2, 2021	September 26, 2020
Net income	\$ 117,461	\$ 79,303	\$ 290,907	\$ 208,345
Adjustments to net income				
Charge for fair value write-up of acquired inventory sold	—	229	—	590
Deal and transaction costs	—	642	—	2,576
Integration costs	1,290	1,260	3,966	1,663
Severance and restructuring costs	206	971	529	3,863
Loss on extinguishment of debt and modification	—	908	23,338	2,378
Amortization of intangible assets	11,843	11,749	35,616	41,176
Tax effect of adjustments to net income and certain discrete tax items ¹	(5,417)	(3,602)	(16,749)	(11,979)
Non-GAAP net income	\$ 125,383	\$ 91,460	\$ 337,607	\$ 248,612
Diluted earnings per common share	\$ 0.86	\$ 0.58	\$ 2.13	\$ 1.53
Effect of adjustments to net income	0.06	0.09	0.34	0.30
Diluted non-GAAP earnings per common share	\$ 0.92	\$ 0.67	\$ 2.47	\$ 1.83

¹The tax effect of pre-tax adjustments to net income was calculated using the applicable marginal tax rate for each respective year.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The Company's principal financial market risks are sensitivities to interest rates and foreign currency exchange rates. The Company's interest-bearing cash equivalents and senior secured financing obligations are subject to interest rate fluctuations. The Company's cash equivalents are instruments with maturities of three months or less. A 100-basis point change in interest rates would potentially increase or decrease annual net income by approximately \$2.6 million and \$2.4 million as of October 2, 2021 and September 26, 2020, respectively.

The cash flows and results of operations of the Company's foreign-based operations are subject to fluctuations in foreign exchange rates. We have sales denominated in the South Korean Won, New Taiwan Dollar, Chinese Renminbi, Canadian Dollar, Malaysian Ringgit, Singapore Dollar, Euro, Israeli Shekel and the Japanese Yen. Approximately 23.7% and 23.3% of the Company's sales for the quarters ended October 2, 2021 and September 26, 2020, respectively, are denominated in these currencies, respectively. Financial results therefore will be affected by changes in currency exchange rates. If all foreign currencies had experienced a 10% reduction versus the U.S. dollar during the three months ended October 2, 2021 and September 26, 2020, revenue for the quarters would have been negatively impacted by approximately \$13.4 million and \$11.2 million, respectively.

The Company occasionally uses derivative financial instruments to manage the foreign currency exchange rate risks associated with its foreign-based operations. At October 2, 2021, the Company had no net exposure to any foreign currency forward contracts.

Item 4. Controls and Procedures

(a) Evaluation of disclosure controls and procedures.

The Company's management, including the Chief Executive Officer, or CEO, and Chief Financial Officer, or CFO, has conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures (as defined under Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, or the Exchange Act) as of October 2, 2021. The term "disclosure controls and procedures" means controls and other procedures that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on management's evaluation (with the participation of the Company's CEO and CFO), as of October 2, 2021, the Company's CEO and CFO have concluded that the disclosure controls and procedures used by the Company were effective to provide reasonable assurance that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

(b) Changes in internal control over financial reporting.

There has been no change in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) identified in connection with the foregoing evaluation of disclosure controls and procedures that occurred during the most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II

OTHER INFORMATION

Item 1. Legal Proceedings

As of October 2, 2021, the Company is subject to various claims, legal actions, and complaints arising in the ordinary course of business. The Company believes the final outcome of these matters will not have a material adverse effect on its condensed consolidated financial statements. The Company expenses legal costs as incurred.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.Issuer Purchases of Equity Securities

On December 14, 2020, the Company's Board of Directors authorized a repurchase program, effective February 16, 2021, covering the repurchase of up to an aggregate of \$125 million of the Company's common stock during a period of twelve months, in open market transactions and in accordance with one or more pre-arranged stock trading plans to be established in accordance with Rule 10b5-1 under the Exchange Act. This repurchase program replaced the previous repurchase program, which was originally approved in February 2020 and which expired pursuant to its terms on February 15, 2021. The previous program had substantially the same terms.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
July 4, 2021 - August 7, 2021	48,000	\$118.42	48,000	\$96,102,875
August 8, 2021 - September 4, 2021	59,500	\$116.88	59,500	\$89,148,784
September 5, 2021 - October 2, 2021	57,858	\$127.24	57,858	\$81,787,007
Total	165,358	\$120.95	165,358	\$81,787,007

The Company issues common stock awards under its equity incentive plans. In the condensed consolidated financial statements, the Company treats shares of common stock withheld for tax purposes on behalf of its employees in connection with the vesting or exercise of the awards as common stock repurchases because they reduce the number of shares that would have been issued upon vesting or exercise. These withheld shares of common stock are not considered common stock repurchases under the Company's authorized common stock repurchase plan and not included in the table above.

Item 6. Exhibits**EXHIBIT INDEX**

A. The Company hereby incorporates by reference as exhibits to this Quarterly Report on Form 10-Q the following documents:

Reg. S-K Item 601(b) Reference	Document Incorporates	Referenced Document on file the Commission
(4)	Indenture, dated as of April 30, 2021, by and among the Company, certain subsidiaries of the Company and Wells Fargo Bank, National Association, as trustee, including the form of note issuable thereunder.	Exhibit 4.1 to Entegris, Inc. Curr Report on Form 8-K filed with the Securi and Exchange Commission on April 30, 2

B. The Company hereby files as exhibits to this Quarterly Report on Form 10-Q the following documents:

Reg. S-K Item 601(b) Reference	Exhibit No.	Document Filed Herewith
(31)	31.1	Certification of Chief Executive Officer Pursuant to Exchange Act Rule 13a-14(a).
(31)	31.2	Certification of Chief Financial Officer Pursuant to Exchange Act Rule 13a-14(a).
(32)	32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
(101)	101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
(101)	101.SCH	XBRL Taxonomy Extension Schema Document
(101)	101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
(101)	101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
(101)	101.LAB	XBRL Taxonomy Extension Label Linkbase Document
(101)	101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
(104)	104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* A management contract or compensatory plan

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: October 26, 2021

ENTEGRIS, INC.

/s/ Gregory B. Graves

Gregory B. Graves

Executive Vice President and Chief Financial
Officer (on behalf of the registrant and as
principal financial officer)

CERTIFICATIONS

I, Bertrand Loy, certify that:

1. I have reviewed this Report on Form 10-Q of Entegris, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: October 26, 2021

/s/ Bertrand Loy

Bertrand Loy
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATIONS

I, Gregory B. Graves, certify that:

1. I have reviewed this Report on Form 10-Q of Entegris, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: October 26, 2021

/s/ Gregory B. Graves

Gregory B. Graves
Chief Financial Officer
(Principal Financial Officer)

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q (the "Report") of Entegris, Inc, a Delaware corporation (the "Company"), for the period ended October 2, 2021 as filed with the Securities and Exchange Commission on the date hereof, Bertrand Loy, President and Chief Executive Officer of the Company, and Gregory B. Graves, Chief Financial Officer of the Company, each hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: October 26, 2021

/s/ Bertrand Loy

Bertrand Loy
Chief Executive Officer

/s/ Gregory B. Graves

Gregory B. Graves
Chief Financial Officer