AMTECH SYSTEMS INC
Form 10-Q
May 07, 2014
Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q
(Mark One)

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

For the quarterly period ended: March 31, 2014
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: 0-11412

AMTECH SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Arizona (State or other jurisdiction of incorporation or organization)	86-0411215 (I.R.S. Employer Identification No.)
131 South Clark Drive, Tempe, Arizona (Address of principal executive offices)	85281 (Zip Code)

Registrant's telephone number, including area code: 480-967-5146

Indicate by a 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. [X] Yes [ ] No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). [X] Yes [ ] No

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

Large accelerated filer [ ]	Accelerated filer [ ]
	Smaller Reporting Company [ ]

Non-accelerated filer [X] (Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [ ] No [X]
Shares of Common Stock outstanding as of April 30, 2014: 9,842,363

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
TABLE OF CONTENTS

	Page
PART I. FINANCIAL INFORMATION	
Item 1. Condensed Consolidated Financial Statements	
Condensed Consolidated Balance Sheets March 31, 2014 (Unaudited) and September 30, 2013	3
Condensed Consolidated Statements of Operations (Unaudited) Three and Six Months Ended March 31, 2014 and 2013	5
Condensed Consolidated Statements of Comprehensive Income (Loss) (Unaudited) Three and Six Months Ended March 31, 2014 and 2013	6
Condensed Consolidated Statements of Cash Flows (Unaudited) Six Months Ended March 31, 2014 and 2013	7
Notes to Condensed Consolidated Financial Statements (Unaudited)	8
Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations	
Caution Regarding Forward-Looking Statements	18
Overview	18
Results of Operations	18
Liquidity and Capital Resources	22
Off-Balance Sheet Arrangements	22
Contractual Obligations	22
Critical Accounting Policies	22
Impact of Recently Issued Accounting Pronouncements	22
Item 3. Quantitative and Qualitative Disclosures About Market Risk	22
Item 4. Controls and Procedures	23
PART II. OTHER INFORMATION	
Item 1. Legal Proceedings	24
Item 1A. Risk Factors	24
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	24
Item 3. Defaults Upon Senior Securities	24
Item 4. Mine Safety Disclosures	24
Item 5. Other Information	24
Item 6. Exhibits	24
SIGNATURES	26

Table of Contents

PART I. FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Balance Sheets
(in thousands except share data)

	March 31, 2014 (Unaudited)	September 30, 2013
Assets		
Current Assets		
Cash and cash equivalents	$36,650	$37,197
Restricted cash	2,330	5,134
Accounts receivable		
Trade (less allowance for doubtful accounts of $3,154 and $638 at March 31, 2014, and September 30, 2013, respectively)	7,381	4,829
Unbilled and other	7,049	3,194
Inventories	17,348	22,001
Deferred income taxes	1,340	1,330
Refundable income taxes	1,380	7,580
Other	2,042	2,930
Total current assets	75,520	84,195
Property, Plant and Equipment - Net	10,538	11,066
Deferred Income Taxes - Long Term	1,260	1,260
Intangible Assets - Net	3,180	3,502
Goodwill	8,525	8,481
Other Assets - Long Term	2,646	2,443
Total Assets	$101,669	$110,947

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Balance Sheets
(in thousands except share data)

	March 31, 2014 (Unaudited)	September 30, 2013
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$5,992	$5,472
Accrued compensation and related taxes	4,377	3,778
Accrued warranty expense	758	1,454
Deferred profit	5,401	3,067
Customer deposits	4,893	11,253
Other accrued liabilities	8,112	10,140
Income taxes payable	5,590	6,170
Total current liabilities	35,123	41,334
Income Taxes Payable Long-Term	2,900	2,810
Total liabilities	38,023	44,144
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock; 100,000,000 shares authorized; none issued	—	—
Common stock; $0.01 par value; 100,000,000 shares authorized; shares issued and outstanding: 9,842,363 and 9,550,809 at March 31, 2014, and September 30, 2013, respectively	98	96
Additional paid-in capital	81,196	79,610
Accumulated other comprehensive loss	(3,833)	(4,556)
Retained deficit	(12,549)	(8,004)
Total stockholders' equity	64,912	67,146
Noncontrolling interest	(1,266)	(343)
Total equity	63,646	66,803
Total Liabilities and Stockholders' Equity	$101,669	$110,947

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Operations
(Unaudited)
(in thousands, except per share data)

	Three Months Ended March 31,		Six Months Ended March 31,	
	2014	2013	2014	2013
Revenues, net of returns and allowances	$12,717	$8,118	$27,488	$17,475
Cost of sales	9,819	5,665	20,055	13,644
Gross profit	2,898	2,453	7,433	3,831
Selling, general and administrative	5,277	3,968	9,402	8,238
Restructuring charges	—	—	—	697
Research and development	2,155	1,946	3,044	3,108
Operating loss	(4,534)	(3,461)	(5,013)	(8,212)
Interest and other income (loss), net	(20)	39	87	44
Loss before income taxes	(4,554)	(3,422)	(4,926)	(8,168)
Income tax provision (benefit)	—	(800)	560	(1,280)
Net loss	(4,554)	(2,622)	(5,486)	(6,888)
Add: net loss attributable to noncontrolling interest	803	530	941	603
Net loss attributable to Amtech Systems, Inc.	$(3,751)	$(2,092)	$(4,545)	$(6,285)
Loss Per Share:				
Basic loss per share attributable to Amtech shareholders	$(0.39)	$(0.22)	$(0.47)	$(0.66)
Weighted average shares outstanding	9,679	9,539	9,619	9,516
Diluted loss per share attributable to Amtech shareholders	$(0.39)	$(0.22)	$(0.47)	$(0.66)
Weighted average shares outstanding	9,679	9,539	9,619	9,516

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Comprehensive Income (Loss)
(Unaudited)
(in thousands)

	Three Months Ended March 31,		Six Months Ended March 31,	
	2014	2013	2014	2013
Net loss	$(4,554)	$(2,622)	$(5,486)	$(6,888)
Foreign currency translation adjustment	36	(1,468)	741	(77)
Comprehensive loss	(4,518)	(4,090)	(4,745)	(6,965)
Comprehensive loss attributable to noncontrolling interest	762	535	923	620
Comprehensive loss attributable to Amtech Systems, Inc.	$(3,756)	$(3,555)	$(3,822)	$(6,345)

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Six Months Ended March 31,	
	2014	2013
Operating Activities		
Net loss	$(5,486)	$(6,888)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,206	1,382
Write-down of inventory	93	392
Deferred income taxes	—	(12)
Non-cash share based compensation expense	373	758
Provision for allowance for doubtful accounts	1,408	63
Changes in operating assets and liabilities:		
Restricted cash	2,846	48
Accounts receivable	(9,646)	5,901
Inventories	4,860	60
Income taxes refundable and payable, net	5,849	(1,262)
Prepaid expenses and other assets	716	493
Accounts payable	456	(2,762)
Accrued liabilities and customer deposits	(8,799)	(689)
Deferred profit	4,234	(5,255)
Net cash used in operating activities	(1,890)	(7,771)
Investing Activities		
Purchases of property, plant and equipment	(214)	(162)
Net cash used in investing activities	(214)	(162)
Financing Activities		
Proceeds from the exercise of stock options	1,116	—
Excess tax benefit of stock options	100	—
Net cash provided by financing activities	1,216	—
Effect of Exchange Rate Changes on Cash	341	14
Net Decrease in Cash and Cash Equivalents	(547)	(7,919)
Cash and Cash Equivalents, Beginning of Period	37,197	46,726
Cash and Cash Equivalents, End of Period	$36,650	$38,807
Supplemental Cash Flow Information:		
Income tax refunds	$5,471	$18

The accompanying notes are an integral part of these condensed consolidated financial statements.

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
THREE AND SIX MONTHS ENDED MARCH 31, 2014 AND 2013
(UNAUDITED)

1. Basis of Presentation

Nature of Operations and Basis of Presentation – Amtech Systems, Inc. (the “Company” or "Amtech") designs, assembles, sells and installs capital equipment and related consumables used in the manufacture of wafers, primarily for the solar and semiconductor industries. The Company is developing an ion implanter to provide its customers with a more complete solution for their next-generation high-efficiency solar cell production. The Company sells these products to manufacturers of solar cells, silicon wafers, and semiconductors worldwide, particularly in Asia, United States and Europe.

The Company serves niche markets in industries that are experiencing rapid technological advances and which historically have been very cyclical. Therefore, future profitability and growth depend on the Company’s ability to develop or acquire and market profitable new products and on its ability to adapt to cyclical trends.

The accompanying unaudited condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”), and consequently do not include all disclosures normally required by accounting principles generally accepted in the United States of America. In the opinion of management, the accompanying unaudited interim condensed consolidated financial statements contain all adjustments necessary, all of which are of a normal and recurring nature, to present fairly our financial position, results of operations and cash flows. Certain information and note disclosures normally included in financial statements have been condensed or omitted pursuant to the rules and regulations of the SEC. These condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the fiscal year ended September 30, 2013.

The consolidated results of operations for the three and six months ended March 31, 2014, are not necessarily indicative of the results to be expected for the full fiscal year.

Principles of Consolidation – The consolidated financial statements include the accounts of the Company, its wholly-owned subsidiaries and subsidiaries in which it has a controlling interest. The Company reports noncontrolling interests in consolidated entities as a component of equity separate from the Company's equity. All material intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue Recognition – Revenue is recognized upon shipment of the Company’s proven technology equal to the sales price less the greater of (i) the fair value of undelivered services or (ii) the contingent portion of the sales price, which is generally 10-20% of the total contract price. The entire cost of the equipment relating to proven technology is recorded upon shipment. The remaining contractual revenue, deferred costs and installation costs are recorded upon the completion of installation at the customers’ premises and acceptance of the product by the customer.

For purposes of revenue recognition, proven technology means the Company has a history of at least two successful installations. New technology systems are those systems with respect to which the Company cannot demonstrate that it can meet the provisions of customer acceptance at the time of shipment. The full amount of revenue and costs of new technology shipments is recognized upon the completion of installation at the customers' premises and acceptance of the product by the customer.

Revenue from services is recognized as the services are performed. Revenue from prepaid service contracts is recognized ratably over the life of the contract. Revenue from spare parts is recorded upon shipment.

Table of Contents

Deferred Profit – Revenue deferred pursuant to the Company's revenue recognition policy, net of the related deferred costs, if any, is recorded as deferred profit in current liabilities. The components of deferred profit are as follows:

	March 31, 2014	September 30, 2013
	(dollars in thousands)	
Deferred revenues	$11,158	$3,371
Deferred costs	5,757	304
Deferred profit	$5,401	$3,067

Concentrations of Credit Risk – Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of trade accounts receivable and cash. The Company's customers, located throughout the world, consist of manufacturers of solar cells, semiconductors, semiconductor wafers, light-emitting diodes (LEDs) and micro-electro-mechanical systems (MEMS). Credit risk is managed by performing ongoing credit evaluations of the customers' financial condition, by requiring significant deposits where appropriate, and by actively monitoring collections. Letters of credit are required of certain customers depending on the size of the order, type of customer or its creditworthiness, and its country of domicile. Reserves for potentially uncollectible receivables are maintained based on an assessment of collectability.

The Company maintains its cash, cash equivalents and restricted cash in multiple financial institutions. Balances in the United States (approximately 50% of total cash balances) are primarily invested in U.S. Treasuries or are in financial institutions insured by the Federal Deposit Insurance Corporation (FDIC). The remainder of the Company's cash is maintained in banks in The Netherlands, France and China that are uninsured.

As of March 31, 2014, two customers, individually, accounted for 17% and 11% of accounts receivable.

Restricted Cash – Restricted cash is $2.3 million and $5.1 million as of March 31, 2014, and September 30, 2013, respectively. The balance includes collateral for bank guarantees required by certain customers from whom deposits have been received in advance of shipment and cash received from research and development grants related to our ion implant technology to be used for research and development projects.

Accounts Receivable - Unbilled and Other – Unbilled and other accounts receivable consist mainly of the contingent portion of the sales price that is not collectible until successful installation of the product. These amounts are generally billed upon final customer acceptance. For the majority of these amounts, a liability has been accrued in deferred profit.

Inventories – Inventories are stated at the lower of cost or net realizable value. Approximately 75% of inventory is valued on an average cost basis with the remainder determined on a first-in, first-out (FIFO) basis. The components of inventories are as follows:

	March 31, 2014	September 30, 2013
	(dollars in thousands)	
Purchased parts and raw materials	$12,297	$11,757
Work-in-process	2,970	7,104
Finished goods	2,081	3,140
	$17,348	$22,001

Property, Plant and Equipment – Property, plant and equipment are recorded at cost. Maintenance and repairs are charged to expense as incurred. The cost of property retired or sold and the related accumulated depreciation are removed from the applicable accounts when disposition occurs and any gain or loss is recognized. Depreciation is computed using the straight-line method. Useful lives for equipment, machinery and leasehold improvements range from three to seven years; for furniture and fixtures from five to ten years; and for buildings twenty years.

Table of Contents

The following is a summary of property, plant and equipment:

	March 31, 2014	September 30, 2013
	(dollars in thousands)	
Land, building and leasehold improvements	$11,122	$10,960
Equipment and machinery	7,895	7,630
Furniture and fixtures	5,781	5,685
	24,798	24,275
Accumulated depreciation and amortization	(14,260)	(13,209)
	$10,538	$11,066

Goodwill - Goodwill is not subject to amortization and is reviewed for impairment on an annual basis, typically at the end of the fiscal year, or more frequently if circumstances dictate.

The following is a summary of activity in goodwill:

	Solar and Semiconductor Equipment	Polishing Supplies and Equipment	Total
	(dollars in thousands)		
Balance at the beginning of year			
Goodwill	$12,563	$728	$13,291
Accumulated impairment losses	(4,810)	—	(4,810)
	7,753	728	8,481
Net exchange differences	44	—	44
Balance at the end of quarter			
Goodwill	12,607	728	13,335
Accumulated impairment losses	(4,810)	—	(4,810)
	$7,797	$728	$8,525

Intangibles – Intangible assets are capitalized and amortized over their useful life if the life is determinable. If the life is not determinable, amortization is not recorded.

The following is a summary of intangibles:

	Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		March 31, 2014			September 30, 2013		
		(dollars in thousands)					
Non-compete agreements	4-8 years	$1,068	$ (841)	$227	$1,065	$ (717)	$348
Customer lists	10 years	886	(582)	304	871	(532)	339
Technology	5-10 years	2,455	(1,593)	862	2,426	(1,422)	1,004
In-process research and development	(1)	1,600	—	1,600	1,600	—	1,600
Other	2-10 years	347	(160)	187	341	(130)	211

$6,356	$ (3,176	) $3,180	$6,303	$ (2,801	) $3,502

10

Table of Contents

(1) The in-process research and development will be amortized over its useful life when it has reached technological feasibility.

Long-lived assets - Long-lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Warranty – A limited warranty is provided free of charge, generally for periods of 12 to 24 months, for all purchases of the Company's new products and systems. Accruals are recorded for estimated warranty costs at the time the system is accepted by the customer.

The following is a summary of activity in accrued warranty expense:

	Six Months Ended March 31,	
	2014	2013
	(dollars in thousands)	
Beginning balance	$1,454	$2,687
Warranty expenditures	(496)	(791)
Warranty provisions/(adjustment)	(200)	169
Ending balance	$758	$2,065

Stock-Based Compensation - The Company measures compensation costs relating to share-based payment transactions based upon the grant-date fair value of the award. Those costs are recognized as expense over the requisite service period, which is generally the vesting period. The benefits of tax deductions in excess of recognized compensation cost are credited to additional paid-in capital and reported as cash flow from financing activities rather than as cash flow from operating activities.

Share-based compensation expense reduced the Company's results of operations by the following amounts:

	Three Months Ended March 31,		Six Months Ended March 31,	
	2014	2013	2014	2013
	(dollars in thousands)			
Effect on income before income taxes (1)	$(197)	$(327)	$(373)	$(758)
Effect on income taxes	119	41	159	100
Effect on net income	$(78)	$(286)	$(214)	$(658)

(1) Stock-based compensation expense is included in selling, general and administrative expenses.

Stock options issued under the terms of the plans have, or will have, an exercise price equal to or greater than the fair market value of the common stock at the date of the option grant and expire no later than 10 years from the date of grant, with the most recent grant expiring in 2023. Options issued by the Company vest over 2 to 4 years.

Table of Contents

Stock option transactions and the options outstanding are summarized as follows:

	Six Months Ended March 31,			
	2014		2013	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at beginning of period	1,059,417	$6.71	891,293	$9.37
Granted	220,406	7.01	312,850	2.95
Exercised	(260,726)	4.28	—	—
Forfeited	(3,464)	6.92	(2,255)	7.77
Outstanding at end of period	1,015,633	$7.40	1,201,888	$7.71
Exercisable at end of period	664,934	$8.11	597,245	$9.19
Weighted average fair value of options granted during the period	$4.38		$1.82	

The fair value of options was estimated at the grant date using the Black-Scholes option pricing model with the following assumptions:

	Six Months Ended March 31,	
	2014	2013
Risk free interest rate	2%	1%
Expected life	6 years	6 years
Dividend rate	0%	0%
Volatility	69%	70%

To estimate expected lives for this valuation, it was assumed that options will be exercised at varying schedules after becoming fully vested. Forfeitures have been estimated at the time of grant and will be revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based upon historical experience. Fair value computations are highly sensitive to the volatility factor assumed; the greater the volatility, the higher the computed fair value of the options granted. The Company uses historical stock prices to determine the volatility factor.

The Company awards restricted shares under the existing share-based compensation plans. Our restricted share awards vest in equal annual installments over a two to four-year period. The total value of these awards is expensed on a ratable basis over the service period of the employees receiving the grants. The “service period” is the time during which the employees receiving grants must remain employees for the shares granted to fully vest.

Table of Contents

Restricted stock transactions and awards outstanding are summarized as follows:

	Six Months Ended March 31,			
	2014		2013	
	Awards	Weighted Average Grant Date Fair Value	Awards	Weighted Average Grant Date Fair Value
Beginning Outstanding	69,154	$10.13	127,975	$9.06
Released	(30,828)	10.08	(55,646)	7.65
Forfeited	—	—	(50)	7.98
Ending Outstanding	38,326	$10.17	72,279	$10.15

Fair Value of Financial Instruments

In accordance with the requirements of the Fair Value Measurements and Disclosures Topic of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification (ASC), the Company groups its financial assets and liabilities measured at fair value on a recurring basis in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:
Level 1 - Valuation is based upon quoted market price for identical instruments traded in active markets.
Level 2 - Valuation is based on quoted market prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.
Level 3 - Valuation is generated from model-based techniques that use significant assumptions not observable in the market. Valuation techniques include use of discounted cash flow models and similar techniques.

In accordance with the requirements of the Fair Value Measurements and Disclosures Topic of the FASB ASC, it is the Company's policy to use observable inputs whenever reasonably practicable in order to minimize the use of unobservable inputs when developing fair value measurements. When available, the Company uses quoted market prices to measure fair value. If market prices are not available, the fair value measurement is based on models that use primarily market based parameters including interest rate yield curves, option volatilities and currency rates. In certain cases, where market rate assumptions are not available, the Company is required to make judgments about assumptions market participants would use to estimate the fair value of a financial instrument. Changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the results of current or future values.

Cash Equivalents - Included in Cash and Cash Equivalents in the Condensed Consolidated Balance Sheet is $18.0 million and $18.5 million as of March 31, 2014 and September 30, 2013, respectively, of money market funds invested in treasury bills, notes and other direct obligations of the U.S. Treasury. The fair value of this cash equivalent is based on Level 1 inputs in the fair value hierarchy.

Receivables and Payables - The recorded amounts of these financial instruments, including accounts receivable and accounts payable, approximate their fair value because of the short maturities of these instruments. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Pensions - The Company has retirement plans covering substantially all employees. The principal plans are the multiemployer defined benefit pension plans of the Company's operations in The Netherlands and France and the plan for hourly union employees in Pennsylvania. The multiemployer plans in the United States and France are insignificant. The Company's defined contribution plans cover substantially all of the employees in the United States. The Company matches employee funds on a discretionary basis.

Table of Contents

Shipping expense – Shipping expenses of $0.2 million and $0.1 million for the three months ended March 31, 2014 and 2013, respectively, are included in selling, general and administrative expenses. Shipping expenses of $0.5 million and $0.4 million for the six months ended March 31, 2014 and 2013, respectively, are included in selling, general and administrative expenses.

Research and development expense – Research and development expenses consist of the cost of employees, consultants and contractors who design, engineer and develop new products and processes; materials and supplies used in those activities; and product prototyping. The Company receives reimbursements through governmental research and development grants which are netted against these expenses when certain conditions have been met. The table below shows gross research and development expenses and grants earned:

	Three Months Ended		Six Months Ended	
	March 31, 2014	March 31, 2013	March 31, 2014	March 31, 2013
	(dollars in thousands)		(dollars in thousands)	
Research and development	$2,494	$2,184	$5,388	$4,643
Grants earned	(339)	(238)	(2,344)	(1,535)
Net research and development	$2,155	$1,946	$3,044	$3,108

Impact of Recently Issued Accounting Pronouncements

In April 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-08 "Presentation of Financial Statements (Topic 205) and Property, Plant and Equipment (Topic 360)." The amendments in this Update change the requirements for reporting discontinued operations in Subtopic 205-20. A discontinued operation may include a component of an entity or a group of components of an entity, or a business or nonprofit activity.
A disposal of a component of an entity or a group of components of an entity is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results when any of the following occurs:
1. The component of an entity or group of components of an entity meets the criteria in paragraph 205-20-45-1E to be classified as held for sale.
2. The component of an entity or group of components of an entity is disposed of by sale.
3. The component of an entity or group of components of an entity is disposed of other than by sale (for example, by abandonment or in a distribution to owners in a spinoff).
The amendments in this Update improve the definition of discontinued operations by limiting discontinued operations reporting to disposals of components of an entity that represent strategic shifts that have (or will have) a major effect on an entity's operations and financial results. Under current U.S. GAAP, many disposals, some of which may be routine in nature and not a change in an entity's strategy, are reported in discontinued operations.
The amendments in this Update require expanded disclosures for discontinued operations. The FASB concluded that those disclosures should provide users of financial statements with more information about the assets, liabilities, revenues, and expenses of discontinued operations.
The amendments in this Update also require an entity to disclose the pretax profit or loss (or change in net assets for a not-for-profit entity) of an individually significant component of an entity that does not qualify for discontinued operations reporting. The Board concluded that this disclosure should provide users with information about the financial effects of significant disposals that do not qualify for discontinued operations reporting.
The amendments in this Update are effective for fiscal years, and interim periods within those years, beginning after December 15, 2014. The Company will evaluate the impact of the Update as future transactions occur.

In July 2013, the FASB issued ASU No. 2013-11 "Income Taxes (Topic 740)." An unrecognized tax benefit, or a portion of an unrecognized tax benefit, should be presented in the financial statements as a reduction to a deferred tax

asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward, except as follows. To the extent a net operating loss carryforward, a similar tax loss, or a tax credit carryforward is not available at the reporting date under the tax law of the applicable jurisdiction to settle any additional income taxes that would result from the disallowance of a tax position or the tax law of the applicable

Table of Contents

jurisdiction does not require the entity to use, and the entity does not intend to use, the deferred tax asset for such purpose, the unrecognized tax benefit should be presented in the financial statements as a liability and should not be combined with deferred tax assets. The assessment of whether a deferred tax asset is available is based on the unrecognized tax benefit and deferred tax asset that exist at the reporting date and should be made presuming disallowance of the tax position at the reporting date. The amendments in this Update are effective for fiscal years, and interim periods within those years, beginning after December 15, 2013.

In March 2013, the FASB issued ASU No. 2013-05 "Foreign Currency Matters (Topic 830)." The objective of the amendments in this Update is to resolve the diversity in practice about which codification subtopic applies to the release of the cumulative translation adjustment into net income when a parent either sells a part or all of its investment in a foreign entity or no longer holds a controlling financial interest in a subsidiary or group of assets that is a business within a foreign entity.

The amendments in this Update are effective prospectively for fiscal years (and interim reporting periods within those years) beginning after December 15, 2013. The Company will evaluate the impact of the Update as future transactions occur.
In February 2013, The FASB issued ASU No. 2013-04 "Liabilities (Topic 405)," The guidance in this Update requires an entity to measure obligations resulting from joint and several liability arrangements for which the total amount of the obligation within the scope of this guidance is fixed at the reporting date, as the sum of the following:

a. The amount the reporting entity agreed to pay on the basis of its arrangement among its co-obligors.
b. Any additional amount the reporting entity expects to pay on behalf of its co-obligors.

The guidance in this Update also requires an entity to disclose the nature and amount of the obligation as well as other information about those obligations. The amendments in this Update are effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The Company does not expect this Update to have a material impact on the Company's consolidated financial statements.

2. Income Taxes

The quarterly income tax provision is calculated using an estimated annual effective tax rate, based upon expected annual income, permanent items, statutory rates and planned tax strategies in the various jurisdictions in which the Company operates. However, losses in certain jurisdictions and discrete items are treated separately.

Deferred tax assets and liabilities reflect the tax effects of temporary differences between the carrying value of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company records a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of a deferred tax asset will not be realized. Our expectations regarding realization of our deferred tax assets is based upon the weight of all available evidence, including such factors as our recent earnings history, expected future taxable income and available tax planning strategies. The Company maintains a valuation allowance with respect to certain state and foreign deferred tax assets that may not be recovered. Each quarter, the valuation allowance is re-evaluated. During the six months ended March 31, 2014, the valuation allowance increased by $1.2 million due to net operating losses in China and The Netherlands.

The Company classifies all of our uncertain tax positions as non-current income taxes payable. At March 31, 2014 and September 30, 2013, the total amount of unrecognized tax benefits was approximately $1.6 million. If recognized, these amounts would favorably impact the effective tax rate.

The Company classifies interest and penalties related to unrecognized tax benefits as income tax expense. As of March 31, 2014, and September 30, 2013, the Company has an accrual for potential interest and penalties of

approximately $1.4 million and $1.2 million, respectively.

The Company and one or more of its subsidiaries file income tax returns in The Netherlands, Germany, France, China and Hong Kong, as well as the U.S. and various states in the U.S. The Company and its subsidiaries have a number of open tax years dictated by statute in each of the respective taxing jurisdictions, which are generally from 3 to 5 years.

3. Earnings Per Share

Basic earnings per share (EPS) is computed by dividing net income (loss) by the weighted average number of common shares outstanding for the period. Diluted EPS is computed similarly to basic EPS except that the denominator is increased to include the number of additional common shares that would have been outstanding if potentially dilutive common shares had been issued. In the case of a net loss, diluted earnings per share is calculated in the same manner as basic EPS.

For the three and six months ended March 31, 2014, options for 1,016,000 shares and 38,000 restricted stock awards are excluded from the diluted EPS calculations because they are anti-dilutive. For the three and six months ended March 31, 2013, options for 1,202,000 shares and 72,000 restricted stock awards were excluded from the diluted EPS calculations because they were anti-dilutive.

	Three Months Ended March 31,		Six Months Ended March 31,	
	2014	2013	2014	2013
	(in thousands, except per share amounts)		(in thousands, except per share amounts)	
Basic Loss Per Share Computation				
Net loss attributable to Amtech Systems, Inc.	$(3,751)	$(2,092)	$(4,545)	$(6,285)
Weighted Average Shares Outstanding:				
Common stock	9,679	9,539	9,619	9,516
Basic loss per share attributable to Amtech shareholders	$(0.39)	$(0.22)	$(0.47)	$(0.66)
Diluted Loss Per Share Computation				
Net loss attributable to Amtech Systems, Inc.	$(3,751)	$(2,092)	$(4,545)	$(6,285)
Weighted Average Shares Outstanding:				
Common stock	9,679	9,539	9,619	9,516
Common stock equivalents (1)	—	—	—	—
Diluted shares	9,679	9,539	9,619	9,516
Diluted loss per share attributable to Amtech shareholders	$(0.39)	$(0.22)	$(0.47)	$(0.66)

(1) The number of common stock equivalents is calculated using the treasury stock method and the average market price during the period.

4. Business Segment Information

The Company’s products are classified into two business segments: the solar and semiconductor equipment segment and the polishing supplies segment. In the solar and semiconductor equipment segment, we are a leading supplier of thermal processing systems, including related automation, parts and services, to the solar/photovoltaic, semiconductor, silicon wafer and MEMS industries and also offer PECVD (plasma-enhanced chemical vapor deposition) equipment. In the polishing supplies segment, the Company produces consumables and machinery for lapping (fine abrading) and polishing of materials, such as sapphire substrates, optical components, silicon wafers, numerous types of crystal materials, ceramics and metal components.

Table of Contents

Information concerning our business segments is as follows:

	Three Months Ended		Six Months Ended	
	March 31, 2014	March 31, 2013	March 31, 2014	March 31, 2013
	(dollars in thousands)			
Net Revenues:				
Solar and semiconductor equipment	$10,288	$6,187	$22,851	$13,222
Polishing supplies and equipment	2,429	1,931	4,637	4,253
	$12,717	$8,118	$27,488	$17,475
Operating income (loss):				
Solar and semiconductor equipment	$(3,926)	$(2,384)	$(3,578)	$(5,551)
Polishing supplies and equipment	550	378	968	532
Non-segment related	$(1,158)	$(1,455)	(2,403)	(3,193)
	$(4,534)	$(3,461)	$(5,013)	$(8,212)

	March 31, 2014	September 30, 2013
	(dollars in thousands)	
Identifiable Assets:		
Solar and semiconductor equipment	$96,398	$106,723
Polishing supplies and equipment	5,271	4,224
	$101,669	$110,947

5. Major Customers and Foreign Sales

During the three months ended March 31, 2014, one customer individually represented 11% of net revenues. During the three months ended March 31, 2013, two customer individually represented 13% and 10% of net revenues. During the six months ended March 31, 2014, two customers individually represented 18% and 16% of net revenues. During the six months ended March 31, 2013, no customers individually represented more than 10% of net revenues.

Our net revenues were to customers in the following geographic regions:

	Six Months Ended March 31,	
	2014	2013
United States	30%	24%
China	15%	29%
Taiwan	17%	17%
Other	14%	11%
Total Asia	46%	57%
Germany	5%	6%
Other	19%	13%
Total Europe	24%	19%
	100%	100%

6. Commitments and Contingencies

16

Table of Contents

Purchase Obligations – As of March 31, 2014 we had purchase obligations in the amount of $13.6 million compared to $12.3 million as of September 30, 2013. These purchase obligations consist of outstanding purchase orders for goods and services. While the amount represents purchase agreements, the actual amounts to be paid may be less if any agreements are renegotiated, canceled or terminated.

Development projects – In fiscal 2014, Tempress Systems, Inc. ("Tempress") entered into an agreement with the Energy Research Centre of the Netherlands ("ECN"), a Netherlands government sponsored research institute, for a joint research and development project. Under the terms of the agreement, Tempress will sell an ion implanter ("Equipment") to ECN for $1.4 million. Both Tempress and ECN will perform research and development ("R&D") projects utilizing the Equipment at the ECN facilities. Each party to the agreement will have 100% rights to the results of the projects developed separately by the individual parties. Any results co-developed will be jointly owned. The effective date of the agreement will be the date of the Equipment acceptance by ECN. We expect to receive the acceptance in the second half of fiscal 2014. The agreement lasts for a period of four years beginning with the effective date. Over the period of the agreement, Tempress is required to contribute $1.4 million to the R&D project in the form of installation of the equipment, acceptance testing, project meeting attendance, training, parts, and service, including keeping the equipment in good condition and repair for the first two years of the agreement.

In 2013, Shanghai Kingstone Semiconductor Company Ltd. ("Kingstone") entered into an agreement with certain government agencies in Shanghai, China for the purpose of developing ion implant technology for non-solar applications. Kingstone has begun the first phase of this development project and received $3.6 million of grant funds for the project. Under the arrangement, Kingstone has agreed that by July 2014 it will have in place $6.1 million of its commitment to the project. The agreement will terminate upon the occurrence of certain events or if the project does not pass the first phase project evaluation. Otherwise, the remainder of Kingstone's commitment is to be in place by December 2015. Amtech owns 55% of Kingstone Technology Hong Kong Limited, which owns 100% of Shanghai Kingstone Semiconductor Company Ltd. Amtech has no obligation or plan to fund Kingstone's commitments under this agreement.

Litigation – The Company is a party to various claims arising in the normal course of business. Management believes the resolution of these matters will not have a material impact on the Company’s results of operations or financial condition.

7. Restructuring Charges

Restructuring charges for the six months ended March 31, 2013 were $0.7 million. The restructuring charges in fiscal 2013 relate primarily to severance costs incurred as a result of the reductions-in-force at certain operations. There were no restructuring charges in fiscal 2014.

Table of Contents

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and the related notes included in Item 1, "Condensed Consolidated Financial Statements" in this quarterly report on Form 10-Q and our consolidated financial statements and related notes included in Item 8, "Financial Statements and Supplementary Data" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2013.

Cautionary Statement Regarding Forward-Looking Statements

Certain information contained or incorporated by reference in this Quarterly Report on Form 10-Q is forward-looking in nature. All statements included or incorporated by reference in this Quarterly Report on Form 10-Q, or made by management of Amtech Systems, Inc. and its subsidiaries ("the Company" or "Amtech"), other than statements of historical fact, are hereby identified as "forward-looking statements" (as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended). In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "would," "expects," "plan "anticipates," "intends," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology. Examples of forward-looking statements include statements regarding Amtech's future financial results, operating results, business strategies, projected costs, products under development, competitive positions and plans and objectives of the Company and its management for future operations.
We cannot guarantee that any forward-looking statement will be realized, although we believe that the expectations reflected in the forward-looking statements are reasonable. Achievement of future results is subject to risks, uncertainties and potentially inaccurate assumptions. The Form 10-K that we filed with the Securities and Exchange Commission for the year-ended September 30, 2013 listed various important factors that could affect Amtech's future operating results and financial condition and could cause actual results to differ materially from historical results and expectations based on forward-looking statements made in this document or elsewhere by Amtech or on its behalf. These factors can be found under the heading "Risk Factors" in the Form 10-K and investors should refer to them. Because it is not possible to predict or identify all such factors, any such list cannot be considered a complete set of all potential risks or uncertainties. Except as required by law, we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events, or otherwise.

Introduction

Management's Discussion and Analysis ("MD&A") is intended to facilitate an understanding of our business and results of operations. MD&A consists of the following sections:

- Overview
- Results of Operations
- Liquidity and Capital Resources
- Off – Balance Sheet Arrangements
- Contractual Obligations
- Critical Accounting Policies
- Impact of Recently Issued Accounting Pronouncements

Overview

We operate in two segments: (i) the solar and semiconductor equipment segment and (ii) the polishing supplies segment. In our solar and semiconductor equipment segment, we are a leading supplier of thermal processing systems, including related automation, parts and services, to the solar/photovoltaic, semiconductor, silicon wafer and MEMS

industries and also offer PECVD (plasma-enhanced chemical vapor deposition) equipment to the solar market. In our polishing supplies segment, we produce consumables and machinery for lapping (fine abrading) and polishing of materials, such as sapphire substrates, optical components, silicon wafers, numerous types of crystal materials, ceramics and metal components. Since the 2011 acquisition of Kingstone Technology Hong Kong, Limited ("Kingstone"), a holding company that owns 100% of Kingstone Semiconductor Company Ltd., a Shanghai-based technology company specializing in ion implant solutions for the solar industry, we have advanced the development of an ion implanter to provide our solar customers with a more complete solution for their next-generation high-efficiency solar cell production.

Our customers are primarily manufacturers of solar cells and integrated circuits. The solar cell and semiconductor industries are cyclical and historically have experienced significant fluctuations. Our revenue is impacted by these broad industry trends. In 2012 and 2013, the solar cell industry experienced a structural imbalance between supply and demand. This imbalance has negatively impacted our results of operations and is expected to do so in the future.

Our strategy has been, and continues to be, to grow the Company through strategic product development and acquisitions. In addition to internal product development, we have acquired companies with complementary products or products that serve adjacent process steps. In October 2007, we acquired R2D Automation SAS, which allowed us to provide our diffusion furnaces with integrated automation that is also sold as a stand-alone product. In February 2011, we acquired a 55% ownership interest in Kingstone.

Results of Operations

The following table sets forth certain operational data as a percentage of net revenue for the periods indicated:

	Three Months Ended				Six Months Ended			
	March 31, 2014		March 31, 2013		March 31, 2014		March 31, 2013	
Net revenue	100	%	100	%	100	%	100	%
Cost of goods sold	77	%	70	%	73	%	78	%
Gross margin	23	%	30	%	27	%	22	%
Operating expenses:								
Selling, general and administrative	41	%	50	%	34	%	47	%
Restructuring charges	0	%	0	%	0	%	4	%
Research and development	17	%	24	%	11	%	18	%
Total operating expenses	58	%	74	%	45	%	69	%
Loss from operations	(35	)%	(44	)%	(18	)%	(47	)%
Interest income (expense), net	0	%	0	%	0	%	0	%
Loss before income taxes	(35	)%	(44	)%	(18	)%	(47	)%
Income taxes provision (benefit)	0	%	(10	)%	2	%	(7	)%
Net loss	(35	)%	(34	)%	(20	)%	(40	)%
Add: net loss attributable to noncontrolling interest	6	%	7	%	3	%	3	%
Net loss attributable to Amtech Systems, Inc.	(29	)%	(27	)%	(17	)%	(37	)%

Net Revenue

Net revenue consists of revenue recognized upon shipment or installation of products using proven technology and upon acceptance of products using new technology. In addition, spare parts sales are recognized upon shipment. Service revenue is recognized upon completion of the service activity or ratably over the term of the service contract. Since the majority of our revenue is generated from large system sales, revenue and operating income can be significantly impacted by the timing of system shipments, and recognition of revenue based on customer acceptances.

Table of Contents

Segment	Three months ended March 31, 2014	2013	Inc (Dec)	%	Six months ended March 31, 2014	2013	Inc (Dec)	%
	(dollars in thousands)							
Solar and semiconductor equipment segment	$10,288	$6,187	$4,101	66 %	$22,851	$13,222	$9,629	73 %
Polishing supplies segment	2,429	1,931	498	26 %	4,637	4,253	384	9 %
Total net revenue	$12,717	$8,118	$4,599	57 %	$27,488	$17,475	$10,013	57 %

Net revenue for the quarters ended March 31, 2014 and 2013 was $12.7 million and $8.1 million, respectively, an increase of $4.6 million or 57%. Revenue from the solar and semiconductor equipment segment increased 66% due to increased volume resulting from improved demand, partially offset by lower recognition of previously-deferred revenue. Net revenue from the solar market was $6.1 million and $3.9 million for the three months ended March 31, 2014 and 2013, respectively. While we experienced improved demand during the second fiscal quarter of 2014, the current supply / demand imbalance and global economic conditions have continued to negatively impact sales in the solar equipment market and have caused our customers to significantly slow or push out their capacity expansion plans, and it is difficult to predict when the overall market will improve. Contributing to the increased revenues from the solar and semiconductor equipment segment was an upturn in our semiconductor customers' capital equipment purchases.

Net revenue for the six months ended March 31, 2014 and 2013 was $27.5 million and $17.5 million, respectively, an increase of $10.0 million or 57%. Revenue from the solar and semiconductor equipment segment increased 73% due, in part, to the large shipment of n-type cell technology, partially offset by deferred revenue. According to our revenue recognition policy, 100% of the revenue for plasma-enhanced chemical vapor deposition (PECVD) equipment was deferred, because it is considered new technology until the customer's defined specifications have been met for two similarly configured systems and processes. Net revenue from the solar market was $12.7 million and $8.1 million for the six months ended March 31, 2014, and 2013, respectively. Contributing to the increased revenues from the solar and semiconductor equipment segment was an upturn in our semiconductor customers' capital equipment purchases.

Increased revenues from the polishing supplies segment resulted from significant increases in sales of polishing templates, which are used in single-sided polishing processes. Sales of polishing templates have improved due primarily to the increased demand for sapphire substrates used in LED lighting and mobile communication devices.

Backlog and Orders

Our order backlog as of March 31, 2014 and 2013 was $31.0 million and $14.1 million, respectively, an increase of more than 100%. Our backlog as of March 31, 2014 includes approximately $20.5 million of orders and deferred revenue from our solar industry customers, compared to $10.5 million at March 31, 2013. New orders booked in the quarter ended March 31, 2014 were $21.5 million; more than double the $9.6 million of customer orders in the quarter ended March 31, 2013. As of March 31, 2014, three customers individually accounted for 23%, 15% and 13% of our backlog. The orders included in our backlog are generally credit approved customer purchase orders expected to ship within the next twelve months. Because our orders are typically subject to cancellation or delay by the customer, our backlog at any particular point in time is not necessarily representative of actual sales for succeeding periods, nor is backlog any assurance that we will realize profit from completing these orders. Our backlog also includes revenue deferred pursuant to our revenue recognition policy, derived from orders that have already been shipped, but which have not met the criteria for revenue recognition.

Gross Profit and Gross Margin

Gross profit is the difference between net revenue and cost of goods sold. Cost of goods sold consists of purchased material, labor and overhead to manufacture equipment and spare parts and the cost of service and support to customers for installation, warranty and paid service calls. Gross margin is gross profit as a percent of net revenue.

Table of Contents

Segment	Three Months Ended March 31, 2014	2013	Inc (Dec)	%		Six months ended March 31, 2014	2013	Inc (Dec)	%	
	(dollars in thousands)									
Solar and semiconductor equipment segment	$1,970	$1,758	$212	12	%	$5,694	$2,709	$2,985	110	%
Polishing supplies segment	928	695	233	34	%	1,739	1,122	617	55	%
Total gross profit	$2,898	$2,453	$445	18	%	$7,433	$3,831	$3,602	94	%

Gross profit for the three months ended March 31, 2014 and 2013 was $2.9 million and $2.5 million, respectively; an increase of $0.4 million. Gross margin on products from our solar and semiconductor equipment segment was 19% in the quarter ended March 31, 2014, compared to 28% in the quarter ended March 31, 2013. While gross profit increased in the second quarter of fiscal 2014, gross margins decreased. That decrease in gross margin is due to the recognition of previously-deferred revenue being a much larger compenent of net revenue in the second quarter of 2013, compared to the second quarter of fiscal 2014. In the quarter ended March 31, 2014, we deferred profit of $0.7 million compared to a net recognition of previously-deferred profit of $2.8 million in the quarter ended March 31, 2013.

Gross profit for the six months ended March 31, 2014 and 2013 was $7.4 million and $3.8 million, respectively; an increase of $3.6 million. Gross margin on products from our solar and semiconductor equipment segment was 25% in the six months ended March 31, 2014, compared to 22% in the six months ended March 31, 2013. The higher gross margin resulted, in part, from the use of previously-written down inventory. In addition, improved utilization of manufacturing capacity with increased sales volumes as well as expense reductions from company-wide cost-control initiatives favorably impacted the gross margins. In the six months ended March 31, 2014, we deferred profit of $4.2 million compared to net recognition of previously-deferred profit of $5.3 million in the six months ended March 31, 2013. The high level of recognition of previously-deferred profit in the first half of fiscal 2013 had a favorable impact on reported gross margins that was not repeated in the first half of fiscal 2014.

Gross margin on products from our polishing supplies segment was 38% for the three and six months ended March 31, 2014. Gross margin for the three and six months ended March 31, 2013 was 36% and 26%, respectively. Higher margins in this segment resulted primarily from improved operational efficiencies associated with increased sales of templates.

Selling, General and Administrative

Selling, general and administrative expenses consist of the cost of employees, consultants and contractors, facility costs, sales commissions, shipping costs, promotional marketing expenses, legal, accounting expenses and bad debt expense.

Segment	Three Months Ended March 31, 2014	2013	Inc (Dec)	%		Six months ended March 31, 2014	2013	Inc (Dec)	%	
	(dollars in thousands)									
Solar and semiconductor equipment segment	$4,899	$3,651	$1,248	34	%	$8,630	$7,648	$982	13	%

Polishing supplies segment	378	317	61	19	%	772	590	182	31	%
Total selling, general and administrative expenses	$5,277	$3,968	$1,309	33	%	$9,402	$8,238	$1,164	14	%

Selling, general and administrative (SG&A) expenses for the three and six months ended March 31, 2014 were $5.3 million and $9.4 million, respectively. This includes $0.2 million and $0.3 million of stock-based compensation expense for the respective three and six month periods. SG&A expenses for the three and six month periods ending March 31, 2013 were $4.0 million and $8.2 million, respectively. This includes $0.3 million and $0.8 million of stock-based compensation for the respective three and six month periods. The increase in SG&A expenses resulted from bad debt expense of $1.4 million related to financial difficulties being encountered by certain customers. Collection efforts and negotiations of continued service of these customers are ongoing. Partially offsetting this increased expense are savings from continued company-wide cost-control initiatives, including lower salaries and benefits.

Table of Contents

Restructuring Charges

There were no restructuring charges in the first half of fiscal 2014. Restructuring charges for the six months ended March 31, 2013 were $0.7 million, resulting from the company's cost-cutting efforts in fiscal 2013, primarily severance costs related to reductions-in-force.

Research and Development

Research and development expenses consist of the cost of employees, consultants and contractors who design, engineer and develop new products and processes as well as materials and supplies used in producing prototypes. Reimbursement of research and development costs in the form of governmental research and development grants are netted against these expenses.

	Three Months Ended March 31,				Six Months Ended March 31,			
	2014	2013	Incr. (Decr.)	% change	2014	2013	Incr. (Decr.)	% change
	(dollars in thousands)				(dollars in thousands)			
Research and development	$2,494	$2,184	$310	14 %	$5,388	$4,643	$745	16 %
Grants earned	(339)	(238)	(101)	42 %	(2,344)	(1,535)	(809)	53 %
Net research and development	$2,155	$1,946	$209	11 %	$3,044	$3,108	$(64)	(2)%

Research and development ("R&D") expense (net of grants earned) for the three months ended March 31, 2014 increased $0.2 million compared to the three months ended March 31, 2013. For the six months ended March 31, 2014, R&D expense, net of grants earned did not change significantly from net R&D expense for the six months ended March 31, 2013. For the three and six month periods, the increased spending relates primarily to higher activity in the development of the ion implant technology for markets other than solar. Total increased R&D spending during the most recent quarter was partially offset by increased earnings from government grants. Increased spending for the first half of fiscal 2014 was completely offset by increased earnings from government grants.

As described in our Annual report on Form 10-K for the fiscal year ended September 30, 2013, our Kingstone subsidiary has entered into an agreement for the development of ion implant technology in China for markets other than solar. Depending on its progress, this development project may result in a significant increase in research and development expenses.

Income Taxes

For the three and six month periods ended March 31, 2014 we recorded income tax expense of zero and $0.6 million, respectively. For the three and six month periods ended March 31, 2013 we recorded an income tax benefit of $0.8 million and $1.3 million, respectively. The income tax provisions are based upon estimates of annual income, annual permanent differences and statutory tax rates in the various jurisdictions in which we operate, except that certain loss jurisdictions and discrete items are treated separately. No tax benefit has been recognized for losses related to Kingstone's ion implant development project and the Netherlands operations, because Kingstone does not have a sufficient history of earnings and the Netherlands operations have cumulative losses.

The Financial Accounting Standards requires that a valuation allowance be established when it is “more likely than not” that all or a portion of deferred tax assets will not be realized. A review of all available positive and negative evidence needs to be considered, including a company’s performance, the market environment in which the company operates

and the length of carryback and carryforward periods. According to those standards, it is difficult to conclude that a valuation allowance is not needed when the negative evidence includes cumulative losses in recent years. Therefore, cumulative losses weigh heavily in the overall assessment. As a result of the review as of March 31, 2014, we concluded that it was appropriate to increase the valuation allowance for the net operating losses incurred this year in the Netherlands and China, where cumulative losses have been incurred. Available tax planning strategies cause us to believe that it is more likely than not that the deferred tax assets related to the United States tax jurisdiction will be realized despite cumulative losses there.

Our future effective income tax rate depends on various factors, such as the amount of income (loss) in each tax jurisdiction, tax regulations governing each region, non-tax deductible expenses incurred as a percent of pre-tax income and the effectiveness of our tax planning strategies. At the end of 2011, we restructured our European operations to lower the tax rate on the Netherlands

operations from 35% to a marginal rate of 25%, as we intend to permanently reinvest future Dutch earnings in our foreign operations. The effect of the restructure on our tax rate depends on the amount of income or loss earned in the Netherlands.

Liquidity and Capital Resources

At March 31, 2014, and September 30, 2013, cash and cash equivalents were $36.6 million and $37.2 million, respectively. At March 31, 2014, and September 30, 2013, restricted cash was $2.3 million and $5.1 million, respectively. Our working capital was $40.4 million as of March 31, 2014 and $42.9 million as of September 30, 2013.

The decrease in cash for the first six months of fiscal 2014 of $0.5 million was primarily due to cash used in operating activities of $1.9 million, partially offset by cash provided by financing activities, both discussed below. We maintain a portion of our cash and cash equivalents in Euros at our Dutch and French operations; therefore, changes in the exchange rate have an impact on our cash balances. Our ratio of current assets to current liabilities was 2.2:1 and 2.0:1 as of March 31, 2014, and September 30, 2013, respectively.

At March 31, 2014, we have current refundable income taxes of $1.4 million and current taxes payable of $5.6 million, reflecting an expected refund of taxes in The Netherlands in fiscal 2014 and an expected payment of U.S. taxes in fiscal 2015. See information below regarding other contractual obligations. We have never paid dividends on our Common Stock.

The success of our growth strategy is dependent upon the availability of additional capital resources on terms satisfactory to management. Our sources of capital in the past have included the sale of equity securities, which include common and preferred stock sold in private transactions and public offerings, capital leases and long-term debt. We believe that our principal sources of liquidity discussed above are sufficient to support operations for at least the next twelve months.

Cash Flows from Operating Activities

Cash used in our operating activities was $1.9 million for the six months ended March 31, 2014, compared to $7.8 million used by such activities for the six months ended March 31, 2013. Increases in accounts receivable and decreases in customer deposits were significant uses of cash during the first half of fiscal 2014, partially offset by decreases in inventory and receipt of refundable income taxes.

Cash Flows from Investing Activities

Our investing activities for each of the six month periods ended March 31, 2014 and 2013 consisted of purchases of property, plant and equipment of approximately $0.2 million.

Cash Flows from Financing Activities

For the six months ended March 31, 2014, the primary source of $1.2 million of cash provided by financing activities was proceeds from the exercise of stock options. There were no significant cash flows from financing activities in the six months ended March 31, 2013.

Off-Balance Sheet Arrangements

As of March 31, 2014, Amtech had no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K promulgated by the Securities and Exchange Commission.

Contractual Obligations

Purchase obligations were $13.6 million as of March 31, 2014, compared to $12.3 million as of September 30, 2013, an increase of $1.3 million. Refer to Amtech's annual report on Form 10-K for the year ended September 30, 2013, for information on the Company's other contractual obligations.

Critical Accounting Policies

"Management's Discussion and Analysis of Financial Condition and Results of Operations" discusses our condensed consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amount of assets and liabilities at the date of the condensed consolidated financial statements, the disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenue and expenses during the reporting period.

On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, inventory valuation, accounts and notes receivable collectability, warranty and impairment of long-lived assets. We base our estimates and judgments on historical experience and on various other factors that we believe to be reasonable under the circumstances. The results of these estimates and judgments form the basis for making conclusions about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

A critical accounting policy is one that is both important to the presentation of our financial position and results of operations, and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. These uncertainties are discussed in Part I, Item 1A of our Annual Report on Form 10-K for the year ended September 30, 2013. We believe our critical accounting policies relate to the more significant judgments and estimates used in the preparation of our consolidated financial statements.

We believe the critical accounting policies discussed in the section entitled "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2013 represent the most significant judgments and estimates used in the preparation of our consolidated financial statements. There have been no significant changes in our critical accounting policies during the six months ended March 31, 2014.

Impact of Recently Issued Accounting Pronouncements

For discussion of the impact of recently issued accounting pronouncements, see "Item 1: Financial Information" under "Impact of Recently Issued Accounting Pronouncements".

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to foreign currency exchange rates to the extent sales contracts, purchase contracts, assets or liabilities of our operations are denominated in currencies other than their functional currency. Our operations in the United States are conducted in their functional currency, the U.S. dollar. Our operations in Europe and China conduct business primarily in their functional currencies, the Euro and Renminbi, respectively, and occasionally enter into

transactions in the U.S. dollar. It is highly uncertain how currency exchange rates will fluctuate in the future. Actual changes in foreign exchange rates could adversely affect our operating results or financial condition.

During fiscal 2013 and in the first six months of fiscal 2014, we did not hold any stand-alone or separate derivative instruments. We incurred net foreign currency transaction gains or losses of less than $0.1 million during the six months ended March 31, 2014 and 2013. As of March 31, 2014, our foreign subsidiaries had $0.6 million of assets (cash and accounts receivable) denominated in currencies other than their functional currency. A 10% change in the value of the functional currency relative to the non-functional currency would result in a gain or loss of $0.1 million. As of March 31, 2014, we had $0.4 million of accounts payable, consisting of amounts owed by our foreign subsidiaries to our U.S. companies, denominated in U.S. dollars. Although the intercompany accounts are eliminated in consolidation, a 10% change in the value of the Euro relative to the U.S. dollar would result in a gain or loss of less than $0.1 million. The risk associated with foreign currency translation gains and losses has increased with our 2011 acquisition in China.

We incurred foreign currency translation gains of $0.7 million and losses of $0.1 million during the six months ended March 31, 2014, and 2013, respectively, a type of other comprehensive income (loss), which is a direct adjustment to stockholders' equity. Our net investment in and advances to our foreign operations totaled $38.5 million as of March 31, 2014. A 10% change in the value of the foreign currencies relative to the U.S. dollar would cause approximately $3.9 million of other comprehensive income (loss). The risk associated with foreign currency translation adjustments has increased with our 2011 acquisition in China.

During the six months ended March 31, 2014 and 2013, U.S. dollar denominated sales of our European operations were $0.6 million and $1.0 million, respectively. As of March 31, 2014, sales commitments denominated in a currency other than the functional currency of our transacting operation totaled $1.0 million. Our lead-times to fulfill these commitments generally range between 13 and 26 weeks. A 10% change in the relevant exchange rates between the time the order was taken and the time of shipment would not cause our gross profit on such orders to be significantly greater or less than expected on the date the order was taken.

Table of Contents

As of March 31, 2014, purchase commitments denominated in a currency other than the functional currency of our transacting operation totaled $0.6 million. A 10% change in the relevant exchange rates between the time the purchase order was placed and the time the order is received would not cause our cost of such items to be significantly greater or less than expected on the date the purchase order was placed.

Item 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, including the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), has carried out an evaluation of the effectiveness of our disclosure controls and procedures as of March 31, 2014, pursuant to Exchange Act Rules 13a-15(e) and 15(d)-15(e). 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 it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission'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 management, including the principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Based upon that evaluation, our CEO and CFO have concluded that as of such date, our disclosure controls and procedures in place were not effective. As of March 31, 2014, the Company's management has identified a material weakness in its internal control over financial reporting, before the results of this quarter had been released. The weakness relates to the misapplication of the Company's revenue recognition accounting policy with regard to a non-standard sales contract. A material weakness is a control deficiency or a combination of control deficiencies that results in a reasonable possibility that a material misstatement of the annual or interim consolidated financial statements will not be prevented or detected. The Company's plan to remediate the material weakness noted above is as follows: (1) provide additional training to appropriate personnel regarding revenue recognition; (2) analyze and modify checklists and forms to aid in application of the Company's revenue recognition policies; (3) implement additional review procedures surrounding the revenue recognition process until training has been completed and improved checklists and forms have been implemented.

Changes in Internal Control Over Financial Reporting

There has been no change in Amtech's internal control over financial reporting during the six months ended March 31, 2014 that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting.

Table of Contents

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

The most significant risk factors applicable to Amtech are described in Part I, Item 1A (Risk Factors) of Amtech's Annual Report on Form 10-K for the fiscal year ended September 30, 2013 (our "2013 Form 10-K"). There have been no material changes to the risk factors previously disclosed on our fiscal 2013 Form 10-K.

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

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as Amended	*
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as Amended	*
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	*
32.2	Certification of 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.INS	XBRL Instance Document	**
101.SCH	XBRL Taxonomy Extension Schema Document	**
101.PRE	Taxonomy Presentation Linkbase Document	**

101.CAL	XBRL Taxonomy Calculation Linkbase Document	**
101.LAB	XBRL Taxonomy Label Linkbase Document	**
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	**

Table of Contents

* Filed herewith.

** Furnished herewith. Pursuant to applicable securities laws and regulations, the Company is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions or other liability provisions of the federal securities laws as long as the Company has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fail to comply with the submission requirements. In addition, users of this data are advised that, pursuant to Rule 406T of Regulation S-T, these interactive data files are not deemed to be filed or otherwise incorporated by reference into any registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933 or Section 18 of the Securities Exchange Act of 1934 and otherwise are not subject to liability under these sections.

Table of Contents

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.

AMTECH SYSTEMS, INC.

By	/s/ Bradley C. Anderson	Dated:	May 7, 2014
	Bradley C. Anderson Executive Vice President - Finance/Chief Financial Officer (Principal Accounting Officer)		