AMTECH SYSTEMS INC
Form S-1/A
January 30, 2007

As filed with the Securities and Exchange Commission on January 30, 2007

Registration No. 333-139592

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

AMENDMENT NO. 2

TO

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

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

Arizona	**3559**	**86-0411215**
(State of incorporation)	**(Primary Standard Industrial Classification Code No.)**	**(I.R.S. Employer Identification No.)**

131 South Clark Drive
Tempe, Arizona 85281
(480) 967-5146
(Address, including zip code and telephone number, including area code of registrant s principal executive offices)

Bradley C. Anderson
Vice President Finance, Chief Financial Officer
Amtech Systems, Inc.
131 South Clark Drive
Tempe, Arizona 85281
(480) 967-5146
(Name, address, including zip code and telephone number, including area code, of agent for service)

with copies to:

Christopher D. Johnson, Esq.
Christopher A. Van Tuyl, Esq.
Squire, Sanders & Dempsey L.L.P.
Two Renaissance Square
40 North Central Avenue, Suite 2700
Phoenix, Arizona 85004
(602) 528-4000

Jeffrey Harrell, Esq.
Gabriella Lombardi, Esq.
Pillsbury Winthrop Shaw Pittman LLP
2475 Hanover Street
Palo Alto, California 94304
(650) 233-4500

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box: o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee (3)
Common Stock, par value $0.01 per share	2,530,000 shares	$ 6.87	$ 17,381,100	$ 1,860

(1) Includes 330,000 shares of common stock that may be purchased by the underwriter to cover over-allotments, if any.

(2) Estimated solely for the purpose of calculating the amount of the registration fee, pursuant to Rule 457(c) under the Securities Act of 1933, as amended. The price per share and aggregate offering price are based on the average of the high and low sales prices for shares of common stock of Amtech Systems, Inc., on January 26, 2007, as reported on the NASDAQ Global Market.

(3) $1,887 has been previously paid.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

SUBJECT TO COMPLETION DATED JANUARY 30, 2007

Preliminary Prospectus

2,200,000 Shares of Common Stock
$ Per Share

We are selling 2,200,000 shares of our common stock.

Our common stock trades on the NASDAQ Global Market under the symbol ASYS. On January 26, 2007, the last sale price of our common stock as reported on the NASDAQ Global Market was $6.87 per share.

We have granted the underwriters the right to purchase up to an additional 330,000 shares of common stock solely to cover over-allotments of shares.

Investing in our common stock involves a high degree of risk.
See Risk Factors beginning on page 8.

	Per Share	Total	Total if over-allotment option is exercised
Public offering price	$	$	$
Underwriting discount and commissions	$	$	$
Proceeds, to us (before expenses)	$	$	$

The underwriters expect to deliver the shares to purchasers on or about , 2007.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

C. E. UNTERBERG, TOWBIN

The date of this prospectus is , 2007.

TABLE OF CONTENTS

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents we incorporate by reference contain certain forward-looking statements that involve a number of risks and uncertainties.

Certain information contained or incorporated by reference in this prospectus and the documents we incorporate by reference contain statements that are forward-looking in nature. All statements included or incorporated by reference in this prospectus, or made by the management of Amtech Systems, Inc. and its subsidiaries (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 (the Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended). Examples of forward-looking statements include statements regarding our future financial results, operating results, business strategies, projected costs, products under development, competitive positions and plans and objectives of Amtech and our management for future operations. In some cases, forward-looking statements can be identified by terminology such as may, will, should, would, expects, plans, anticipates, intends, believes, estimates, predicts, potential, continue, terms or other comparable terminology. Any expectations based on these forward-looking statements are subject to risks and uncertainties and other important factors, including the Risk Factors discussed herein. These and many other factors could affect our future operating results and financial condition and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by us or on our behalf. All references to we, our, us, or Amtech refer to Amtech Systems, Inc. and its subsidiaries.

We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this prospectus to conform them to actual results. All of the forward-looking statements are qualified in their entirety by reference to the factors discussed under the caption Risk Factors.

We caution the reader that these risk factors may not be exhaustive. We operate in a continually changing business environment and new risk factors emerge from time to time. Management cannot predict such new risk factors, nor can it assess the impact, if any, of such new risk factors on our businesses or the extent to which any factor or combination of factors may cause actual results to differ materially from those projected in any forward-looking statements. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this prospectus and the documents we incorporate by reference might not occur.

For these statements, we claim the protection of the safe harbor for forward-looking statements contained in Section 21E of the Securities Act.

You should carefully read this prospectus and the documents incorporated by reference in their entirety. They contain information that you should consider when making your investment decision.

This prospectus contains market and other data that we obtained from industry sources. These sources do not guarantee the accuracy or completeness of their information. Although we believe that these sources are reliable, we have not independently verified the information.

PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should read the entire prospectus, including the risks of investing discussed under Risk Factors beginning on page 8 and the following summary together with the more detailed information regarding our company, the shares, our financial statements and the notes to those statements and the other documents incorporated by reference to this prospectus and the exhibits to the registration statement of which this prospectus is a part.

References in this prospectus to Amtech, the Company, we, us, and our, refer to Amtech Systems, Inc. and its subsidiaries, unless otherwise specified.

OUR COMPANY

We are a leading supplier of horizontal diffusion furnace systems used for semiconductor and solar (photovoltaic) cell manufacturing and recognized in the markets that we serve for our technology and our brands. We operate in two business segments: semiconductor equipment and polishing supplies. Our semiconductor equipment is sold under the well-known and respected brand names of Tempress Systems and Bruce Technologies. Our semiconductor segment has customers in both the semiconductor industry and the solar industry. Within the semiconductor industry, we serve a market focused on manufacturers of analog, power, automotive and microcontroller chips with geometries greater than 0.3 microns, denoted as μ, which we believe minimizes direct competition with significantly larger suppliers of semiconductor equipment. Within the solar industry, we provide diffusion and automation equipment to solar cell manufacturers. Under the P.R. Hoffman brand, we believe we are also a leading supplier of insert carriers to manufacturers of silicon wafers, and provide lapping and polishing consumable products as well as equipment used in various industries.

We have been providing manufacturing solutions to the semiconductor industry for over 30 years and are leveraging our technology and industry presence in an effort to expand our penetration into the solar industry. Our customers use our furnaces to manufacture semiconductors, solar cells, silicon wafers and microelectromechanical systems, or MEMS, which are used in end markets such as telecommunications, consumer electronics, computers, automotive, hand-held devices and solar industry products. To complement our research and development efforts, we also sell our furnaces to research institutes and universities.

Driven by internal and external growth, our net revenue increased 45% year over year in both fiscal 2005 and 2006 to $27.9 million and $40.4 million, respectively. During the fourth quarter of fiscal 2004, we acquired the Bruce Technologies horizontal furnace product line, significantly contributing to the increase in net revenue for fiscal 2005. During fiscal 2006, net revenue increased primarily because of higher capital investment by our semiconductor customers driven by the growth in worldwide demand for electronic products and integrated circuits, as well as the increased demand for solar industry products. Our fiscal 2006 net revenue included a multi-furnace order of approximately $5.2 million from one customer. While we expect follow-on orders from this customer, we do not anticipate receiving an order of this magnitude in fiscal 2007 and, therefore, expect our sales to the semiconductor industry over the near term to be flat or slightly decrease.

We expect, however, our sales to solar cell manufacturers to increase in fiscal 2007. As of September 30, 2006, our backlog from solar industry orders, which we expect to ship in fiscal 2007, was $7.6 million generated from $8.0 million in orders in fiscal 2006. Orders generated in fiscal 2005 were $3.8 million. 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. Net Revenue from solar industry sales were $2.8 million and $1.4 million in fiscal 2006 and 2005, respectively. We expect the solar industry to continue to grow as a result of greater interest in environmentally friendly energy alternatives, increased costs of fossil fuels, increased global demand for electricity, solar industry efforts to reduce manufacturing costs and concern over the United States dependence on foreign oil. We plan to continue capitalizing on this trend by improving our existing products and processes for the solar industry, by increasing our solar sales and marketing activities and by acquiring or developing additional products for that industry.

COMPETITIVE STRENGTHS

We believe that we are a leader in the markets we serve as a result of the following competitive strengths:

Leading Market Share and Recognized Brand Names. The Tempress, Bruce Technologies and P.R. Hoffman brands have long been recognized in our industry and identified with high-quality products, innovative solutions and dependable service. We believe that we are a leading supplier with respect to the markets that we serve. Additionally, we believe that our brand recognition and experience will allow us to capitalize on the market opportunities that exist in the solar industry and realize greater demand for our products than most of our competitors.

We have been providing horizontal diffusion furnaces and polishing supplies and equipment to our customers for over 30 years. We have sold and installed over 900 horizontal furnaces worldwide and benefit from the largest installed customer base in the semiconductor industry, which leads to significant replacement and expansion demand. Customers that have purchased our furnaces can leverage their investment in training, spare parts inventory and other costs by acquiring additional equipment from us. We also have an extensive retrofit, parts and service business, which typically generates higher margins than our equipment business.

Experienced Management Team. We are led by a highly experienced management team. Our CEO has over 33 years of industry experience, including 25 years with our company. Our three general managers have an average of over 19 years of semiconductor industry experience and an average of 17 years with our company (including predecessor companies).

Established, Diversified Customer Base. We have long-standing relationships with many of our top customers, which we believe remain strong. We maintain a broad base of customers, including leading semiconductor and wafer manufacturing companies, as well as solar cell manufacturers. In fiscal 2006, our largest customer accounted for approximately 17% of our net revenue, and our top 10 customers collectively

represented approximately 58% of our net revenue. In fiscal 2005, no single customer accounted for more than 10% of our net revenue. In fiscal 2004, our largest customer accounted for approximately 10% of our net revenue. Our largest customer has been different in each of the last three fiscal years.

Proven Acquisition Track Record. Over the last twelve years we have developed a successful acquisition program and have completed the acquisition and integration of three significant businesses. In 1994, we acquired certain assets of Tempress and hired Tempress s engineers to develop our first models of the Tempress horizontal diffusion furnaces for production in The Netherlands. In July 1997, we acquired substantially all of the assets of P.R. Hoffman. This acquisition enabled us to offer new products, including lapping and polishing carriers, polishing templates, lapping and polishing machines and related consumable and spare parts, to our existing customer base as well as to target new customers. In July 2004, we acquired the Bruce Technologies line of semiconductor horizontal furnace operations, product lines and other assets from Kokusai Semiconductor Equipment Corporation (Kokusai), a wholly owned subsidiary of Hitachi, and its affiliate, Kokusai Electric Europe, GmbH. Each of the above acquisitions has contributed to our growth in net revenue and profitability.

Technical Expertise. We have highly trained and experienced mechanical, chemical, environmental, electronic, hardware and software engineers and support personnel. Our engineering group possesses core competencies in product applications and support systems, sophisticated controls, chemical vapor deposition, diffusion and pyrogenic processes, robotics, vacuum systems, ultra clean applications and software driven control packages. We believe this expertise enables us to design, develop and deliver high-quality, technically-advanced integrated product solutions for semiconductor and solar cell manufacturing customers.

Leading Technology Solutions and New Product Development. We pursue a partnering-based approach, in which our engineering and development teams work closely with our customers to ensure our products are tailored to meet our customers specific requirements. We believe this approach enables us to more closely align ourselves with our customers and provide superior systems.

We believe our line of horizontal diffusion furnaces, which allow high wafer-per-hour throughput, is more technologically advanced than most of our competitors equipment. The design of our furnace allows high wafer-per-hour throughput and increases reliability. In addition, the processing and temperature control systems within the furnace provide diverse proven process capabilities, enabling the application of high-quality films onto silicon wafers.

We recently developed a small batch vertical furnace jointly with a major European customer and are currently developing five different thin film processes for use with this furnace. We retain full ownership of this technology. We shipped two of these systems in fiscal 2005 and one in fiscal 2006. We anticipate that this system will have much of the same process capability as other vertical furnaces in the marketplace, but with a lower cost than that of our competitors. In addition, in 2006, we internally developed a machine to produce precision thickness wafer carriers, which we intend to sell as a premium product and which we expect will increase our sales to the carrier market.

Geographically Diverse Customer Base. We believe that our geographically diverse revenue stream helps to minimize our exposure to fluctuations in any one market and maximize our access to potential customers relative to our competitors with geographically concentrated operations. The geographic distribution of our net revenues from fiscal 2004 through 2006 were as follows:

	2006	2005	2004
Asia	41%	36%	33%
North America	35%	40%	36%
Europe	24%	24%	31%

GROWTH STRATEGY

We intend to leverage our competitive strengths through a combination of internal and external growth strategies.

Internal Growth

Our strategy for internal growth includes: expanding on growth opportunities in the solar industry and the Asia-Pacific market; accelerating new product and technology development; enhancing our sales and marketing capabilities; and leveraging our installed base.

Expanding on Growth Opportunities in the Solar Industry. We have had recent success in increasing our sales to the solar industry, which resulted in $10 million in solar orders between September 1, 2005 and September 30, 2006. The increase in orders from solar cell manufacturers is due to our focused product development and marketing efforts, as well as to growth in the solar industry. We believe the growth in the solar industry is primarily attributable to: greater interest in environmentally friendly energy alternatives; increased costs of fossil fuels; increased

global demand for electricity; solar industry efforts to reduce manufacturing costs; and global concern over dependence on politically unstable countries for oil.

Global demand for electricity is expected to increase from 14.8 trillion kilowatt hours in 2003 to 27.1 trillion kilowatt hours in 2025, according to the U.S. Department of Energy. However, the ability of conventional sources of electricity to meet the rapidly expanding global demand could be limited by supply constraints, rising prices, dependence on politically volatile countries for oil and environmental concerns. Worldwide, annual installations by the photovoltaic industry grew from 0.3 gigawatts of power, or GW, in 2001 to 1.5GW in 2005, representing a compound average annual growth rate, or CAGR, of 50%. Looking forward, according to *Photon International*, total solar cell production is expected to increase from 1,700 megawatts of power, or MWp, in 2005 to 10,400 MWp in 2010 for a CAGR of 44%**.** We believe this growth will drive significant demand for our products in the future.

Expanding on Growth Opportunities in the Asia-Pacific Market. With our extensive global knowledge and experience, we intend to further leverage our established sales channels in the Asia-Pacific market. Asia continues to be an important and expanding market for us, particularly because of the continued migration of semiconductor and solar cell manufacturing to countries in that region. According to *Solar Plaza*, total solar cell production in China is expected to grow from 600 MWp in 2005 to 2,200 MWp in 2010 for a CAGR of 30%. Our sales into Asia increased over 60% in fiscal 2006 compared to fiscal 2005 and we expect continued growth in this market.

Accelerating New Product and Technology Development. We are focused on developing new products across our business in response to customer needs in various markets.

> *Small Batch Vertical Furnace*. At $1.5 billion annually, the vertical furnace market is much larger than the horizontal furnace market that we have served historically. Our entry product into the vertical furnace market is a two-tube small batch vertical furnace for wafer sizes of up to 200mm, with each tube having a small flat zone capable of processing 25-50 wafers per run. We anticipate that this system will have much of the same process capability as other vertical furnaces in the marketplace, but with a lower cost than most of our competitors. We are targeting small batch niche applications in the vertical furnace market first, since the competition in the large batch vertical furnace market is intense and our competitors are much larger and have substantially greater financial resources, processing knowledge and advanced technology. We believe our large installed customer base increases the market to which we can sell these small batch vertical furnaces and other new products.
>
> *Precision Thickness Wafer Carrier.* Wafer carriers are work holders into which silicon wafers or other materials are inserted for the purpose of holding them securely in place during the lapping and polishing processes. Many customers thin their wafer carriers to precise tolerances to meet their various applications. In 2006, we developed a machine to produce precision thickness wafer carriers, which we expect will increase our share of the carrier market.

Enhancing our Sales and Marketing Capabilities. In order to increase sales and improve customer service globally, we intend to integrate our Bruce Technologies and Tempress sales and marketing teams and transition them from being product oriented to being regionally focused. We also intend to hire additional senior management to expand our existing solar sales and marketing efforts.

Leveraging our Installed Base. We intend to continue to leverage our relationships with our customers to maximize parts, system, service and retrofit revenue from the large installed base of Bruce Technologies and Tempress brand horizontal diffusion furnaces. We intend to accomplish this by meeting these customers needs for replacement systems and additional capacity, including equipment and services in connection with a customer s relocation to or expansion in Asia.

External Growth

We intend to selectively seek strategic growth opportunities through acquisitions, joint ventures, geographic expansion and the development of additional manufacturing capacity.

Pursuing Strategic Acquisitions that Complement our Strong Platform. Over the last twelve years, we have developed a successful acquisition program and have completed the acquisition and integration of three significant businesses.

> In 1994, we acquired certain assets of Tempress and hired Tempress s engineers to develop our first models of the Tempress horizontal diffusion furnaces for production in The Netherlands.
>
> In 1997, we acquired substantially all of the assets of P.R. Hoffman Machine Products Corporation. This acquisition enabled us to offer new consumable products, including lapping and polishing carriers, polishing templates, lapping and polishing machines and related consumable and spare parts to our existing customer base as well as to target new customers.

During the period between 1999 and 2003, we evaluated and negotiated numerous acquisition opportunities that we ultimately declined to consummate because of what we believed to be inflated market prices.

In 2004, we acquired certain semiconductor horizontal diffusion furnace operations, product lines and other assets from Kokusai, a wholly owned subsidiary of Hitachi, and its affiliate, Kokusai Electric Europe, GmbH. We continue to market the horizontal furnace product line under the name, Bruce Technologies. Bruce Technologies has a large installed base, including several large semiconductor manufacturers.

Each of the above acquisitions has contributed to our growth in net revenue and profitability. Based on a disciplined acquisition strategy, we continue to evaluate potential technology, product and business acquisitions or joint ventures that will increase our existing market share in the solar industry and expand the number of front-end semiconductor processes addressed by our products. In evaluating these opportunities, our objectives include: enhancing our earnings and cash flows, adding complementary product offerings, expanding our geographic footprint, improving production efficiency and growing our customer base.

THE OFFERING

Common Stock Offered by the Company	2,530,000 shares [(1)]
Common Stock Outstanding after this Offering	6,006,042 shares [(1) (2)]
Use of Proceeds	We intend to use the net proceeds from this offering for working capital and other general corporate purposes, including for possible future product or business acquisitions in connection with the planned expansion of our solar and semiconductor businesses. See Use of Proceeds , beginning on page 17.
Risk Factors	You should carefully consider all of the information contained in, and incorporated by reference into, this prospectus, and in particular, you should evaluate the specific risks set forth under Risk Factors , beginning on page 8.
NASDAQ Global Market Symbol	ASYS

[(1)] The number of shares assumes that the underwriters will exercise the over-allotment option granted to them by us.

[(2)] The number of shares outstanding does not include, as of January 29, 2007, 378,384 shares of common stock reserved for issuance upon exercise of options outstanding under our stock options plans.

CORPORATE INFORMATION

Amtech was incorporated in Arizona in October 1981, under the name Quartz Engineering & Materials, Inc. We changed to our present name in 1987. We conduct operations through three wholly-owned subsidiaries: Tempress Systems, Inc., a Texas corporation with all of its operations in The Netherlands (Tempress Systems or Tempress), acquired in 1994; P.R. Hoffman Machine Products, Inc., an Arizona corporation based in Carlisle, Pennsylvania (P.R. Hoffman), acquired in July 1997; and Bruce Technologies, Inc., a Massachusetts corporation based in Billerica, Massachusetts (Bruce Technologies), acquired in July 2004.

Our principal executive offices are located at 131 South Clark Drive, Tempe, Arizona, 85281, and our telephone number is (480) 967-5146. Our website is located at www.amtechsytems.com. The information contained in, or that can be accessed through, our website is not part of this prospectus.

Amtech, Tempress and Atmoscan are our federally registered trademarks. Other trademarks used in this prospectus are the property of their respective owners.

SUMMARY CONSOLIDATED FINANCIAL DATA

We derived the consolidated operating data for the years ended September 30, 2004, 2005 and 2006 and the consolidated balance sheet data as of September 30, 2005 and 2006 from our audited consolidated financial statements incorporated by reference in this prospectus. We derived the consolidated balance sheet data as of September 30, 2004 from our audited consolidated financial statements not incorporated by reference in this prospectus.

The following selected financial data should be read in conjunction with the section of this prospectus entitled Management s Discussion and Analysis of Financial Condition and Results of Operations, and our consolidated financial statements (including the related notes thereto) incorporated by reference in this prospectus.

	Years Ended September 30,		
	2004[1]	2005	2006
	(In thousands, except percentages and per share amounts)		
Operating Data:			
Net revenues	$ 19,299	27,899	$ 40,445
Gross profit	$ 3,949	7,668	10,575
Gross profit %	20.5%	27.5%	26.1%
Operating income (loss)	$ (2,035)	(244)	1,635
Net income (loss)	$ (3,165)	(259)	1,318
Dividends on convertible preferred stock	$	(76)	(81)
Net income (loss) attributable to common	$ (3,165)	(335)	1,237
Earnings (loss) per share:			
Basic earnings (loss) per share	$ (1.17)	(0.12)	0.40
Diluted earnings (loss) per share	$ (1.17)	(0.12)	0.38

(1) On July 1, 2004, the Company acquired the Bruce Technologies horizontal furnace product line from Kokusai.

The following table contains a summary of our balance sheet at period end for the three fiscal years ended September 30, 2006, and as adjusted for the offering.

	September 30,		September 30, 2006	
	2004[1]	2005	Actual	As Adjusted[2]
	(Dollars in thousands)			
Balance Sheet Data:				
Cash and cash equivalents	$ 1,674	$ 3,309	$ 6,433	$ 22,403
Working capital	$ 7,735	$ 9,968	$ 11,883	$ 27,853
Current ratio	2.7:1	3.7:1	2.6:1	4.8:1
Total assets	$ 16,660	$ 17,701	$ 23,563	$ 39,533
Total current liabilities	$ 4,531	$ 3,752	$ 7,337	$ 7,337
Long-term obligations	$ 474	$ 741	$ 617	$ 617
Convertible preferred stock	$	$ 1,935	$	$
Total stockholders equity	$ 11,655	$ 13,208	$ 15,609	$ 31,579

(1) On July 1, 2004, the Company acquired the Bruce Technologies horizontal furnace product line from Kokusai.

(2) The As Adjusted balance sheet data assumes an offering price per share of $7.00 and assumes that the underwriters will exercise the over-allotment option granted to them by us.

RISK FACTORS

Before you invest in the securities offered pursuant to this prospectus, you should be aware that there are various related investment risks, including those described below. You should consider carefully these risk factors together with all of the other information included in this prospectus, and the exhibits to this prospectus.

If any of the following risks actually occur, our business, financial condition, results of operations or prospects could be materially and adversely affected. In such case, the trading price of our common stock could decline and you could lose part or all of your investment.

Risks Related to our Business and Industry.

If demand declines for horizontal diffusion furnaces and related equipment, or for solar industry products, our financial position and results of operations could be materially adversely affected.

The revenue of our semiconductor equipment segment, which accounts for approximately 82% of our consolidated net revenue, is comprised primarily of sales of horizontal diffusion furnaces and our automation products. Our automation products are useable only with horizontal diffusion furnaces. There is a trend in the semiconductor industry, related to the trend to produce smaller chips on larger wafers, towards the use in semiconductor manufacturing facilities of newer technology, such as vertical diffusion furnaces. Vertical diffusion furnaces are more efficient than the horizontal diffusion furnaces in certain manufacturing processes for smaller chips on larger wafers. As early as 1994, we had expected that demand for our horizontal diffusion furnaces would decline as a result of this trend. We believe this trend has not yet adversely affected us to the extent originally expected. However, to the extent that the trend to use vertical diffusion furnaces over horizontal diffusion furnaces continues, our revenue may decline and our corresponding ability to generate income may be adversely affected.

Part of our growth strategy involves expanding our sales to the solar industry. The solar industry is subject to risks relating to industry shortages of polysilicon, the continuation of government incentives, the availability of specialized capital equipment, global energy prices and rapidly changing technologies offering alternative energy sources. If the demand for solar industry products declines, the demand by the solar industry for our products would also decline and our financial position and results of operations would be harmed.

The ongoing volatility of the semiconductor equipment industry may negatively impact our business and results of operations and our corresponding ability to efficiently budget our expenses.

The semiconductor equipment industry is highly cyclical. As such, demand for and the profitability of our products can change significantly from period to period as a result of numerous factors, including, but not limited to, changes in:

- global and regional economic conditions;
- changes in capacity utilization and production volume of manufacturers of semiconductors, silicon wafers, solar cells and MEMS;
- the shift of semiconductor production to Asia, where there often is increased price competition; and
- the profitability and capital resources of those manufacturers.

For these and other reasons, our results of operations for past periods may not necessarily be indicative of future operating results.

Since our business has historically been subject to cyclical industry conditions, we have experienced significant fluctuations in our quarterly new orders and net revenue, both within and across years. Demand for semiconductor and silicon wafer manufacturing equipment and related consumable products has also been volatile as a result of sudden changes in semiconductor supply and demand and other factors in both semiconductor devices and wafer fabrication processes. Our orders tend to be more volatile than our revenue, as any change in demand is reflected immediately in orders booked, which are net of cancellations, while revenue tends to be recognized over multiple quarters as a result of procurement and production lead times and the deferral of certain revenue under our revenue recognition policies. Customer delivery schedules

on large system orders can also add to this volatility since we

generally recognize revenue for new product sales on the date of customer acceptance or the date the contractual customer acceptance provisions lapse. As a result, the fiscal period in which we are able to recognize new products revenue is typically subject to the length of time that our customers require to evaluate the performance of our equipment after shipment and installation, which could cause our quarterly operating results to fluctuate.

The purchasing decisions of our customers are highly dependent on the economies of both their domestic markets and the worldwide semiconductor industry. The timing, length and severity of the up-and-down cycles in the semiconductor equipment industry are difficult to predict. The cyclical nature of our marketplace affects our ability to accurately budget our expense levels, which are based in part on our projections of future revenue.

When cyclical fluctuations result in lower than expected revenue levels, operating results may be adversely affected and cost reduction measures may be necessary in order for us to remain competitive and financially sound. During a down cycle, we must be able to make timely adjustments to our cost and expense structure to correspond to the prevailing market conditions. In addition, during periods of rapid growth, we must be able to increase manufacturing capacity and personnel to meet customer demand, which may require additional liquidity. We can provide no assurance that these objectives can be met in a timely manner in response to changes within the industry cycles. If we fail to respond to these cyclical changes, our business could be seriously harmed.

During the most recent down cycle, beginning in the first half of 2001, the semiconductor industry experienced excess production capacity that caused semiconductor manufacturers to decrease capital spending. We do not have long-term volume production contracts with our customers and we do not control the timing or volume of orders placed by our customers. Whether and to what extent our customers place orders for any specific products and the mix and quantities of products included in those orders are factors beyond our control. Insufficient orders would result in under-utilization of our manufacturing facilities and infrastructure and will negatively affect our financial position and results of operations.

The semiconductor equipment industry is competitive and we are relatively small in size and have fewer resources in comparison with our competitors.

Our industry includes large manufacturers with substantial resources to support customers worldwide. Our future performance depends, in part, upon our ability to continue to compete successfully worldwide. Some of our competitors are diversified companies having substantially greater financial resources and more extensive research, engineering, manufacturing, marketing and customer service and support capabilities than we can provide. We face competition from companies whose strategy is to provide a broad array of products, some of which compete with the products and services that we offer. These competitors may bundle their products in a manner that may discourage customers from purchasing our products. In addition, we face competition from smaller emerging semiconductor equipment companies whose strategy is to provide a portion of the products and services that we offer at often a lower price than ours, using innovative technology to sell products into specialized markets. Loss of competitive position could impair our prices, customer orders, revenue, gross margin and market share, any of which would negatively affect our financial position and results of operations. Our failure to compete successfully with these other companies would seriously harm our business. There is risk that larger, better-financed competitors will develop and market more advanced products than those that we currently offer, or that competitors with greater financial resources may decrease prices thereby putting us under financial pressure. The occurrence of any of these events could have a negative impact on our revenue.

We are dependent on key personnel for our business and product development and sales, and any loss of our key personnel to competitors or other industries could dramatically impact our ability to continue operations.

Historically, our product development has been accomplished through cooperative efforts with two key customers. Our relationship with one of these customers is substantially dependent on personal relations established by our President and Chief Executive Officer. Furthermore, our relationship with a major European customer that has been instrumental in the development of our small batch vertical furnace is substantially dependent upon our European General Manager. While there can be no assurance that such relationships will continue, such cooperation is expected to continue to be a significant element in our future development efforts thereby continuing our reliance on certain of our key personnel.

Amtech is the beneficiary of life insurance policies on the life of our President and Chief Executive Officer, Mr. J.S. Whang, in the amount of $2,000,000, but there is no assurance that such amount will be sufficient to cover the cost of finding and hiring a suitable replacement for Mr. Whang. It may not be feasible for any successor to maintain the same business relationships that Mr. Whang has established. If we were to lose the services of Mr. Whang for any reason, it could have a material adverse affect on our business.

We also depend on the management efforts of our officers and other key personnel and on our ability to attract and retain key personnel. We presently employ 3 engineers at our Tempe, Arizona location, including one with a Ph.D. We employ 10 engineers at our Billerica, Massachusetts plant. We employ 22 engineers, including two with Ph.D. s, at our operations in The Netherlands. These employees design and support the new small batch vertical furnace, horizontal diffusion furnace and conveyor furnace product lines manufactured in The Netherlands and the related automation products manufactured in Massachusetts. Two engineers are employed at our Carlisle, Pennsylvania operation. They design wafer lapping machines and carriers to meet customers processing requirements. During times of strong economic growth, competition is intense for highly skilled employees. There can be no assurance that we will be successful in attracting and retaining such personnel or that we can avoid increased costs in order to do so. There can be no assurance that employees will not leave Amtech or compete against us. Our failure to attract additional qualified employees, or to retain the services of key personnel, could negatively impact our financial position and results of operations.

We may not be able to keep pace with the rapid change in the technology we use in our products.

Success in the semiconductor equipment industry depends, in part, on continual improvement of existing technologies and rapid innovation of new solutions. For example, the semiconductor industry continues to shrink the size of semiconductor devices. These and other evolving customer needs require us to respond with continued development programs.

Technical innovations are inherently complex and require long development cycles and appropriate professional staffing. Our future business success depends on our ability to develop and introduce new products, or new uses for existing products, that successfully address changing customer needs, win market acceptance of these new products or uses and manufacture any new products in a timely and cost-effective manner. If we do not develop and introduce new products, technologies or uses for existing products in a timely manner and continually find ways of reducing the cost to produce them in response to changing market conditions or customer requirements, our business could be seriously harmed.

Acquisitions can result in an increase in our operating costs, divert management s attention away from other operational matters and expose us to other risks associated with acquisitions.

We continually evaluate potential acquisitions and consider acquisitions an important part of our future growth strategy. In the past, we have made acquisitions of, or significant investments in, other businesses with synergistic products, services and technologies and plan to continue to do so in the future. Acquisitions involve numerous risks, including, but not limited to:

- difficulties and increased costs in connection with integration of the personnel, operations, technologies and products of acquired companies;
- diversion of management s attention from other operational matters;
- the potential loss of key employees of acquired companies;
- lack of synergy, or inability to realize expected synergies, resulting from the acquisition;
- the risk that the issuance of our common stock, if any, in an acquisition or merger could be dilutive to our shareholders, if anticipated synergies are not realized; and
- acquired assets becoming impaired as a result of technological advancements or worse-than-expected performance of the acquired company.

Our financial position and results of operations may be materially harmed if we are unable to recoup our investment in research and development.

The rapid change in technology in our industry requires that we continue to make investments in research and development in order to enhance the performance and functionality of our products, to keep pace with competitive products and to satisfy customer demands for improved performance, features and functionality. There can be no assurance that revenue from future products or enhancements will be sufficient to recover the development costs associated with such products or enhancements, or that we will be able to secure the financial resources necessary to fund future development. Research and development costs are typically incurred before we confirm the technical feasibility and commercial viability of a product, and not all development activities result in commercially viable products. In addition, we cannot ensure that products or enhancements will receive market acceptance, or that we will be able to sell these products at prices that are favorable to us. Our business could be seriously harmed if we are unable to sell our products at favorable prices, or if our products are not accepted by the markets in which we operate.

If third parties violate our proprietary rights, in which we have made significant investments, or accuse us of infringing upon their proprietary rights, such events could result in a loss of value of some of our intellectual property or costly litigation.

Our success is dependent in part on our technology and other proprietary rights. We own various United States and international patents and have additional pending patent applications relating to some of our products and technologies. The process of seeking patent protection is lengthy and expensive, and we cannot be certain that pending or future applications will actually result in issued patents, or that, issued patents will be of sufficient scope or strength to provide meaningful protection or commercial advantage to us. Other companies and individuals, including our larger competitors, may develop technologies that are similar or superior to our technology or design around the patents we own or license. We also maintain trademarks on certain of our products and claim copyright protection for certain proprietary software and documentation. However, we can give no assurance that our trademarks and copyrights will be upheld or successfully deter infringement by third parties. Recently, the patent covering technology that we license and use in our manufacture of insert carriers has expired, which may have the effect of diminishing or eliminating any competitive advantage we may have with respect to this manufacturing process.

While patent, copyright and trademark protection for our intellectual property is important, we believe our future success in highly dynamic markets is most dependent upon the technical competence and creative skills of our personnel. We attempt to protect our trade secrets and other proprietary information through confidentiality agreements with our customers, suppliers, employees and consultants and through other security measures. We also maintain exclusive and non-exclusive licenses with third parties for the technology used in certain products. However, these employees, consultants and third parties may breach these agreements, and we may not have adequate remedies for wrongdoing. In addition, the laws of certain territories in which we develop, manufacture or sell our products may not protect our intellectual property rights to the same extent as do the laws of the United States.

From time to time, we have received communications from other parties asserting the existence of patent rights or other intellectual property rights that they believe cover certain of our products, processes, technologies or information. In such cases, we evaluate our position and consider the available alternatives, which may include seeking licenses to use the technology in question on commercially reasonable terms or defending our position. Based on industry practice and prior experience, we believe that licenses or other rights, if necessary, will be available on commercially reasonable terms for existing or future claims. Nevertheless, we cannot ensure that licenses can be obtained, or if obtained will be on acceptable terms, or that litigation or other administrative proceedings will not occur. Defending our intellectual property rights through litigation could be very costly. If we are not able to negotiate the necessary licenses on commercially reasonable terms or successfully defend our position, our financial position and results of operations could be materially and adversely affected.

Our reliance on sales to a few major customers and granting credit to those customers places us at financial risk.

As of September 30, 2006, receivables from three customers comprised 19%, 13% and 12% of our accounts receivable, respectively. A concentration of our receivables from one or a small number of customers places us at risk. If any one or more of our major customers is unable to pay us it could adversely affect our financial position and results of operations. We attempt to manage this credit risk by performing credit checks, by requiring significant partial payments prior to shipment where appropriate and by actively monitoring collections. We also require letters of credit of certain customers depending on the size of the order, type of customer or its creditworthiness and its country of domicile.

If any of our customers cancel or fail to accept a large system order, our financial position and results of operations could be materially and adversely affected.

Our backlog includes orders for large systems, such as our diffusion furnaces, with system prices of up to $1.0 million depending on the system configuration, options included and any special requirements of the customer. 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 financial position and results of operations could be materially and adversely affected should any large systems order be cancelled prior to shipment, or not be accepted by the customer. We have experienced significant cancellations in the past, including $1.2 million in fiscal 1999, $3.5 million in fiscal 2001, and $1.2 million in 2002. We have not experienced any significant cancellations since 2002. Likewise, a significant change in the liquidity or financial position of any of our customers that purchase large systems could have a material impact on the collectibility of our accounts receivable and our future operating results. Our backlog does not provide any assurance that we will realize a profit from those orders or indicate in which period net revenue will be recognized.

Our business might be adversely affected by our dependence on foreign business.

During fiscal 2006, 65% of our net revenue came from customers outside of North America as follows:

Asia (including Korea, People s Republic of China, Taiwan, Japan, Singapore, Malaysia, Australia and India) 41% (includes 13% to Malaysia); and

Europe 24% (includes 14% to Germany).

Because of our significant dependence on revenue from international customers, our operating results could be negatively affected by a decline in the economies of any of the countries or regions in which we do business. Each region in the global semiconductor equipment market exhibits unique characteristics that can cause capital equipment investment patterns to vary significantly from period to period. Periodic local or international economic downturns, trade balance issues, political instability and fluctuations in interest and currency exchange rates could negatively affect our business and results of operations.

We recorded losses of $0.1 million in fiscal 2006, gains of $0.1 million in 2005 and losses of $0.1 million during 2004, as a result of foreign currency transactions. While our business has not been materially affected in the past by currency fluctuations, there is a risk that it may be materially adversely affected in the future. Such risk includes possible losses due to currency exchange rate fluctuations, possible future prohibitions against repatriation of earnings, or proceeds from disposition of investments, and from possible social and military instability in the case of India, South Korea, Taiwan and possibly elsewhere. Our wholly-owned subsidiary, Tempress Systems, has conducted its operations in the Netherlands since 1995 and during 2005 we established a subsidiary in Germany to conduct the European sales of our Bruce Technologies product line. As a result, such operations are subject to the taxation policies, employment and labor laws, transportation regulations, import and export regulations and tariffs, possible foreign exchange restrictions, international monetary fluctuations, and other political, economic and legal policies of that nation, the European Economic Union and the other European nations in which it conducts business. Consequently, we might encounter unforeseen or unfamiliar difficulties in conducting our European operations. Changes in such laws and regulations may have a material adverse effect on our revenue and costs.

If our critical suppliers fail to deliver sufficient quantities of quality product in a timely and cost-effective manner, it could negatively affect our business.

We use a wide range of materials and services in the production of our products including custom electronic and mechanical components, and we use numerous suppliers of materials. We generally do not have guaranteed supply arrangements with our suppliers. Because of the variability and uniqueness of customer orders, we try to avoid maintaining an extensive inventory of materials for manufacturing. Key suppliers include two steel mills capable of producing the types of steel to the tolerances needed for our carriers, an injection molder that molds plastic inserts into our steel carriers, an adhesive manufacturer that supplies the critical glue used in the production of the semiconductor polishing templates and a pad supplier that produces a unique material used to attach semiconductor wafers to the polishing template. We also rely on third parties for certain automation equipment used in the solar industry, machined parts, steel frames and metal panels and other components used particularly in the assembly of semiconductor production equipment.

Although we make reasonable efforts to ensure that parts are available from multiple suppliers, this is not always practical or even possible; accordingly, some key parts are being procured from a single supplier or a limited group of suppliers. During the semiconductor industry peak years, increases in demand for capital equipment resulted in longer lead-times for many important system components, which could cause delays in meeting shipments to our customers. Because the selling price of some of our systems exceeds $1.0 million, the delay in the shipment of even a single system could cause significant variations in our quarterly revenue, operating results and the market value of our common stock. We have sought, and will continue to seek, to minimize the risk of production and service interruptions and shortages of key parts by:

selecting and qualifying alternative suppliers for key parts;

monitoring the financial stability of key suppliers; and

maintaining appropriate inventories of key parts.

There can be no assurance that our financial position and results of operations will not be materially and adversely affected if, in the future, we do not receive in a timely and cost-effective manner a sufficient quantity and quality of parts to meet our production requirements.

We might require additional financing to expand our operations.

We believe that current cash balances, our existing line of credit, cash flows generated from our operations and additional available financing, together with the proceeds of this offering, will provide adequate working capital for at least the next twelve months. However, may require additional financing for further implementation of our growth plans. There is no assurance that any additional financing will be available if and when required, or, even if available, that it would not materially dilute the ownership percentage of the then existing shareholders.

Cost of compliance with Section 404 of the Sarbanes Oxley Act could adversely affect future operating results, the trading price of our common stock and failure to comply could result in loss of our listing on NASDAQ, civil penalties and other liabilities.

Section 404 of the Sarbanes Oxley Act requires management to certify that it has tested and found the Company s internal controls to be effective. It is also required that the Company s independent auditors attest that such management representations are reasonably founded. The adequacy of internal controls generally takes into consideration that the anticipated benefits of a control should outweigh the cost of that control. Auditing standards related to the internal control requirements of Section 404 of the Sarbanes Oxley Act will significantly increase the cost and time needed to comply with the requirements of Section 404. Based upon the existing deadlines, we must fully comply with all requirements of Section 404, no later than September 30, 2008. Complying with these requirements may have a material impact on our operating results. Failure to comply could result in civil penalties, loss of our listing on NASDAQ, and the cost of possible litigation. Because of the complexities and limited time available, there can be no assurance of meeting the compliance deadline.

We are not currently in compliance with the Nasdaq Global Market s audit committee composition requirements.

NASDAQ rules require that our audit committee have a minimum of three members and be comprised only of independent directors. We currently have an audit committee of comprised of two independent board members and are relying on an exception which provides that since we fail to comply with the audit committee composition requirements due to one vacancy on our audit committee, we will have until the earlier of the next annual shareholders meeting or one year from the occurrence of the event that caused the failure to comply with this requirement. We intend to add a new member to our board and our audit committee at our next annual shareholders meeting. If we fail to regain compliance with the applicable NASDAQ rules in a timely manner, we could face delisting.

Terrorist attacks and threats or actual war may negatively impact all aspects of our operations, revenue, costs and stock price.

The 2001 terrorist attacks in the United States, as well as events occurring in response or connection to them, including future terrorist attacks against United States targets, rumors or threats of war, actual conflicts involving the United States or its allies or military or trade disruptions impacting our domestic or foreign suppliers of parts, components and subassemblies, may impact our operations, including, among other things, by causing delays or losses in the delivery of supplies or finished goods and decreased sales of our products. More generally, any of these events could cause consumer confidence and spending to decrease or result in increased volatility in the United States and worldwide financial markets and economy. They could also result in economic recession in the United States or abroad. Any of these occurrences could have a significant adverse impact on our financial position and results of operations.

We face the risk of product liability claims or other litigation.

The manufacture and sale of our products, which in operation involve toxic materials, involve the risk of product liability claims. In addition, a failure of one of our products at a customer site could interrupt the business operations of our customer. Our existing insurance coverage limits may not be adequate to protect us from all liabilities that we might incur in connection with the manufacture and sale of our products if a successful product liability claim or series of product liability claims were brought against us. We may also be involved in other legal proceedings or claims and experience threats of legal action from time to time in the ordinary course of our business. In addition, on December 26, 2006 one of our large shareholders filed a letter with the SEC on Schedule 13D requesting that we withdraw this Offering.

Where appropriate, we intend to vigorously defend all claims. However, any actual or threatened claims, even if not meritorious or material, could result in the expenditure of significant financial and managerial resources. The continued defense of these claims and other types of lawsuits could divert management s attention away from running our business. Negative developments in lawsuits could cause our stock price to decline as well. In addition, required amounts to be paid in settlement of any claims, and the legal fees and other costs associated with such settlement, cannot be estimated and could, individually or in the aggregate, materially harm our financial condition.

We are subject to environmental regulations, and our inability or failure to comply with these regulations could adversely affect our business.

We are subject to environmental regulations in connection with our business operations, including regulations related to manufacturing and our customers use of our products. From time to time, we receive notices regarding these regulations. It is our policy to respond promptly to these notices and to take any necessary corrective action. Our failure or inability to comply with existing or future environmental regulations could result in significant remediation liabilities, the imposition of fines and/or the suspension or termination of development, manufacturing or use of certain of our products, each of which could damage our financial position and results of operations.

Risks Related To The Securities Offered Pursuant to this Prospectus.

Our common stock is thinly traded and you may not be able to sell the securities at all or when you want to do so.

Our common stock currently is quoted on the NASDAQ Global Market and currently is thinly traded. Over the three years ended September 30, 2006, the weekly trading volume for our common stock was as low as 7,900 shares per week and as high as 1,384,973 shares per week as reported by NASDAQ. Our average daily trading volume was 11,263 for the quarter ended September 30, 2006 as reported by NASDAQ. Because of the limited public market for our common stock, you may be unable to sell our common stock when you want to do so if the trading market for our common stock continues to be limited.

Our current capital structure could delay, defer or prevent a change of control.

We are authorized to issue up to 100,000,000 shares of common stock and up to 100,000,000 shares of preferred stock. As of January 29, 2007, there were 3,476,042 shares of common stock outstanding. Authorized but unissued common stock may be issued for such consideration as the board of directors determines to be adequate. The board of directors may issue preferred stock with such rights, preferences, privileges and restrictions as they determine, without shareholder vote. Although we do not currently intend to issue any additional shares of our preferred stock, there can be no assurance that we will not do so in the future. Shareholders may or may not be given the opportunity to vote thereon, depending upon the nature and size of any such transactions, applicable law, the rules and policies of the national securities exchange on which the common stock or preferred stock, as the case may be, is then trading, if any, and the judgment of the board of directors. Shareholders have no preemptive rights to subscribe for newly issued shares of our capital stock.

On May 17, 1999, we declared a dividend distribution of one preferred share purchase right for each outstanding share of common stock. The dividend was payable on June 9, 1999 to shareholders of record as of the close of business on that date. Each right entitles the registered holder to purchase one one-hundredth of a share of Series A Participating Preferred Stock, subject to adjustment, at a price of $8.50 per one one-hundredth of a share of Preferred Stock, subject to adjustment. The rights issuance was adopted as protection against a takeover by a third party.

Mr. Whang has a severance arrangement that requires us to pay three times his annual base salary and certain other key employees have severance arrangements that require us to pay one times annual base salary and acceleration of the vesting of their stock options in the event they are terminated following a change of control in ownership.

Having the outstanding rights, and a substantial number of authorized and unreserved shares of common stock, preferred stock and severance arrangements with key employees could have the effect of making it more difficult for a third party to acquire a majority of our outstanding voting stock. Management could use the additional shares to resist a takeover effort even if the terms of the takeover offer are favored by a majority of the independent shareholders. This could delay, defer or prevent a change in control.

Shares eligible for future sale may cause the market price of our common stock to drop significantly, even if our business is doing well.

The market price of our common stock could decline as a result of sales of a large number of shares of our common stock in the market after this offering or the perception that these sales could occur. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

After the consummation of this offering, there will be 5,676,042 shares of our common stock (6,006,042 shares if the underwriters exercise their over-allotment option in full) outstanding. The 2,200,000 shares of common stock sold in this offering (2,530,000 shares if the underwriters exercise their over-allotment option in full) will be freely tradeable without restriction or further registration under the Securities Act of 1933, as amended, by persons other than our affiliates within the meaning of Rule 144 under the Securities Act.

If our securities become ineligible for trading on the NASDAQ system, they might be subject to Rule 15g-9 of the Securities Exchange Act of 1934, which imposes additional sales practice requirements on broker-dealers who sell such securities to persons other than established customers and accredited investors.

While our common stock is now included on the NASDAQ Global Market, continued listing on NASDAQ will depend on our ability to meet certain eligibility requirements established from time to time by the NASDAQ Global Market. Loss of NASDAQ eligibility could result from material operating losses, or if the market price of our common stock falls below $1.00 per share. For transactions covered by the rule, the broker-dealer must make a special suitability determination for the purchaser and receive the purchaser s written consent to the transaction prior to the sale. The rule may adversely affect the ability of broker-dealers to sell our securities, and consequently may limit the public market for, and the trading price of, our common stock.

Our stock price is volatile and you might not be able to resell your securities at or above the price you have paid.

You might not be able to sell the shares of our common stock at or above the price you have paid. The market price of our common stock might fluctuate significantly in response to many factors, some of which are beyond our control, including the following:

actual or anticipated fluctuations in our annual and quarterly results of operations;

changes in securities analysts expectations;

variations in our operating results, which could cause us to fail to meet analysts or investors expectations;

announcements by our competitors or us of significant technical innovations, contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;

conditions and trends in the semiconductor equipment industry;

general market, economic, industry and political conditions;

changes in market values of comparable companies;

additions or departures of key personnel;

stock market price and volume fluctuations attributable to inconsistent trading volume levels; and

future sales of equity or debt securities, including sales which dilute existing investors.

In addition, the stock market has experienced extreme volatility that often has been unrelated to the performance of its listed companies. Moreover, only a limited number of our shares are traded each day, which could increase the volatility of the price of our stock. These market fluctuations might cause our stock price to fall regardless of our performance. In the past, companies that have experienced volatility in the market price of their stock have been the objects of securities class action litigation. If we were involved in securities class action litigation, it could result in substantial costs and a diversion of our attention and resources and have a material adverse effect on our business.

USE OF PROCEEDS

We estimate that we will receive net proceeds from our offering of our common stock, after deducting underwriting discounts and commissions and other estimated offering expenses payable by us, of approximately $13,822,000, or approximately $15,970,300 if the underwriters exercise their over-allotment option in full, in each case assuming the shares are offered at $7.00 per share. We intend to use the net proceeds for working capital and general corporate purposes, including, but not limited to, possible future product or business acquisitions in connection with the planned expansion of our solar and semiconductor businesses.

DIVIDEND POLICY

We have never paid dividends on our Common Stock. Our present policy is to apply cash to investment in product development, acquisition or expansion; consequently, we do not expect to pay dividends on Common Stock in the foreseeable future.

SELECTED CONSOLIDATED FINANCIAL DATA

We derived the consolidated operating data for the years ended September 30, 2004, 2005 and 2006 and the consolidated balance sheet data as of September 30, 2005 and 2006 from our audited consolidated financial statements incorporated by reference in this prospectus. We derived the consolidated operating data for the fiscal years ended September 30, 2002 and 2003 and the consolidated balance sheet data as of September 30, 2002, 2003 and 2004 from our audited consolidated financial statements not incorporated by reference in this prospectus.

The following selected financial data should be read in conjunction with the section of this prospectus entitled Management s Discussion and Analysis of Financial Condition and Results of Operations, and our consolidated financial statements (including the related notes thereto) incorporated by reference in this prospectus.

	Years Ended September 30,				
	2002	2003	2004[1]	2005	2006
	(In thousands, except percentages and per share amounts)				
Operating Data:					
Net revenues	$ 20,533	$ 19,434	$ 19,299	$ 27,899	$ 40,445
Gross profit	$ 4,997	$ 4,835	$ 3,949	$ 7,668	$ 10,575
Gross profit %	24.3%	24.9%	20.5%	27.5%	26.1%
Operating income (loss)	$ 77	$ (245)	$ (2,035)	$ (244)	$ 1,635
Net income (loss)	$ 118	$ (100)	$ (3,165)	$ (259)	$ 1,318
Dividends on convertible preferred stock	$	$	$	$ (76)	$ (81)
Net income (loss) attributable to common	$ 118	$ (100)	$ (3,165)	$ (335)	$ 1,237
Earnings (loss) per share:					
Basic earnings (loss) per share	$ 0.04	$ (0.04)	$ (1.17)	$ (0.12)	$ 0.40
Diluted earnings (loss) per share	$ 0.04	$ (0.04)	$ (1.17)	$ (0.12)	$ 0.38
Balance Sheet Data:					
Cash and cash equivalents	$ 8,046	$ 7,453	$ 1,674	$ 3,309	$ 6,433
Working capital	$ 12,166	$ 12,727	$ 7,735	$ 9,968	$ 11,883
Current ratio	5.5:1	4.9:1	2.7:1	3.7:1	2.6:1
Total assets	$ 17,393	$ 18,399	$ 16,660	$ 17,701	$ 23,563
Total current liabilities	$ 2,722	$ 3,259	$ 4,531	$ 3,752	$ 7,337
Long-term obligations	$ 459	$ 640	$ 474	$ 741	$ 617
Convertible preferred stock	$	$	$	$ 1,935	$
Total stockholders equity	$ 14,212	$ 14,499	$ 11,655	$ 13,208	$ 15,609

(1) On July 1, 2004, the Company acquired the Bruce Technologies horizontal furnace product line from Kokusai.

QUARTERLY CONSOLIDATED FINANCIAL DATA

The following table presents unaudited quarterly financial information for each of the twelve quarters ended September 30, 2006. In the opinion of management, this information contains all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation thereof. The operating results are not necessarily indicative of results for any future periods. Quarter-to-quarter comparisons should not be relied upon as indicators of future performance. Our operating results are subject to quarterly fluctuations as a result of a number of factors. See Risk Factors Risk Related to our Business and Industry.

	For the Quarter Ended											
	2004				2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	(Unaudited) (dollars in thousands, except per share amounts)											
Operating Data:												
Net revenues	$ 3,921	$ 5,631	$ 4,835	$ 4,912	$ 7,172	$ 8,915	$ 5,507	$ 6,305	$ 7,914	$ 10,892	$ 10,351	$ 11,288

Gross profit	$ 1,189	$ 1,588	$ 1,100	$ 72	$ 2,134	$ 2,507	$ 1,732	$ 1,295	$ 2,537	$ 2,737	$ 2,643	$ 2,658
Gross profit %	30.3%	28.2%	22.8%	1.5%	29.8%	28.1%	31.5%	20.5%	32.1%	25.1%	25.5%	23.5%
Operating income (loss)	$ 34	$ 148	$ (356)	$ (1,861)	$ 97	$ 459	$ 78	$ (878)	$ 478	$ 427	$ 201	$ 529
Net income (loss)	$ 2	$ 98	$ (250)	$ (3,015)	$ 68	$ 503	$ 132	$ (962)	$ 471	$ 182	$ 168	$ 497
Dividends on convertible preferred stock	$	$	$	$	$	$	$ 33	$ 43	$ 44	$ 37	$	$
Net income (loss) attributable to common	$ 2	$ 98	$ (250)	$ (3,015)	$ 68	$ 503	$ 99	$ (1,005)	$ 427	$ 182	$ 168	$ 497
Earnings (loss) per share:												
Basic earnings (loss) per share	$	$ 0.04	$ (0.09)	$ (1.11)	$ 0.03	$ 0.19	$ 0.04	$ (0.37)	$ 0.16	$ 0.05	$ 0.05	$ 0.14
Diluted earnings (loss) per share	$	$ 0.03	$ (0.09)	$ (1.11)	$ 0.02	$ 0.18	$ 0.04	$ (0.37)	$ 0.14	$ 0.05	$ 0.05	$ 0.14

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes incorporated by reference into this prospectus. This discussion contains forward-looking statements, which involve risk and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors including, but not limited to, those discussed in Risk Factors and elsewhere in this prospectus.

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: a summary of our business.

Results of Operations: a discussion of operating results.

Liquidity and Capital Resources: an analysis of cash flows, sources and uses of cash and financial position.

Contractual Obligations and Commercial Commitments

Critical Accounting Policies: a discussion of critical accounting policies that require the exercise of judgments and estimates.

Impact of Recently Issued Accounting Pronouncements: a discussion of how we are affected by recent pronouncements.

Overview

We operate in two segments: semiconductor equipment and polishing supplies. Our semiconductor equipment segment is a leading supplier of thermal processing systems, including related automation, parts and services, to the semiconductor, solar/photovoltaic, silicon wafer and MEMS industries.

Our polishing supplies and equipment segment is a leading supplier of wafer carriers to manufacturers of silicon wafers. The polishing segment also manufacturers polishing templates, steel carriers and double-sided polishing and lapping machines to fabricators of optics, quartz, ceramics and metal parts, and to manufacturers of medical equipment components.

Our customers are primarily manufacturers of integrated circuits and solar cells. The semiconductor and solar cell industries are cyclical and historically have experienced significant fluctuations. Our revenue is impacted by these broad industry trends.

In June 2006, we adopted a plan to consolidate the manufacturing of our automation product line into facilities already used to manufacture diffusion furnaces. Our automation products are often sold in conjunction with new diffusion furnaces. As a result of this decision, we recorded approximately $0.2 million of restructuring charges in fiscal 2006.

In July 2004, we completed the acquisition of the Bruce Technologies horizontal diffusion furnace product line from Kokusai Semiconductor Equipment Corporation , which we believe makes us a leading manufacturer of horizontal diffusion furnaces.

Results of Operations

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

	Years Ended September 30,		
	2006	2005	2004
Net revenues	100.0%	100.0%	100.0%
Cost of sales	73.9%	72.5%	79.5%
Gross margin	26.1%	27.5%	20.5%
Selling, general and administrative	20.5%	26.2%	28.3%
Restucturing charge	0.5%		
Research and development	1.1%	2.2%	2.8%
Operating income (loss)	4.0%	(0.9)%	(10.6)%
Interest and other income (expense), net		0.3%	(0.3)%
Income (loss) before income taxes	4.0%	(0.6)%	(10.9)%
Income tax provision	0.7%	0.3%	5.5%
Net income (loss)	3.3%	(0.9)%	(16.4)%

Fiscal 2006 compared to Fiscal 2005

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. The majority of our revenue is generated from large furnace systems sales which, depending on the timing of shipment and installation, can have a significant impact on our revenue and earnings in any given period. *See* Critical Accounting Policies - Revenue Recognition.

	Years Ended September 30,			
Net Revenue	**2006**	**2005**	**Inc (Dec)**	**%**
	(dollars in thousands)			
Semiconductor Equipment Segment	$ 33,363	$ 20,668	$ 12,695	61%
Polishing Supplies Segment	7,082	7,231	(149)	(2)%
Net revenues	$ 40,445	$ 27,899	$ 12,546	45%

Overall growth in net revenue in fiscal 2006 was primarily due to a beginning backlog of $14.4 million, a robust semiconductor equipment market, and increasing penetration into the solar market. Net revenue in fiscal 2006 was positively impacted by the shipment of a $5.2 million multi-furnace order in the quarter ended March 31, 2006, for which there was no corresponding order of similar magnitude in fiscal 2005. In addition, net revenue in fiscal 2006 was positively impacted by revenue related to the solar industry of approximately $2.8 million versus

$1.4 million in fiscal 2005.

The decrease in net revenue of the polishing supplies segment was due primarily to a decrease in sales of insert carriers.

The following table reflects new orders, shipments and net revenue for each quarter of fiscal 2006 and 2005, on a consolidated basis, as well as for each of our two business segments.

	Fiscal Quarter						
	First	Second	Third	Fourth[2]	Fiscal Year[2]	Semi-conductor Equipment Segment [2]	Polishing Supplies Segment
	(dollars in thousands)						
2006:							
New orders [1]	$ 11,236	$ 6,505	$ 10,506	$ 11,410	$ 39,657	$ 32,577	$ 7,080
Shipments	$ 8,420	$ 11,378	$ 10,899	$ 10,636	$ 41,333	$ 34,251	$ 7,082
Net revenues	$ 7,915	$ 10,892	$ 10,351	$ 11,287	$ 40,445	$ 33,363	$ 7,082
Ending backlog	$ 17,709	$ 13,322	$ 13,477	$ 13,600	$ 13,600	$ 12,614	$ 986
Book-to-bill ratio	**1.3:1**	**0.6:1**	**1.0:1**	**1.1:1**	**1.0:1**	**1.0:1**	**1.0:1**
2005							
New orders [1]	$ 8,323	$ 5,079	$ 7,152	$ 14,433	$ 34,987	$ 27,884	$ 7,104
Shipments	$ 6,952	$ 8,928	$ 5,706	$ 6,888	$ 28,474	$ 21,235	$ 7,239
Net revenues	$ 7,172	$ 8,915	$ 5,507	$ 6,305	$ 27,899	$ 20,668	$ 7,231
Ending backlog	$ 8,451	$ 4,615	$ 6,260	$ 14,388	$ 14,388	$ 13,400	$ 988
Book-to-bill ratio	**1.2:1**	**0.6:1**	**1.3:1**	**2.1:1**	**1.2:1**	**1.3:1**	**1.0:1**

(1) Orders are net of cancellations and include the change in the U. S. dollar value of orders recorded in Euros by our semiconductor equipment segment.

(2) The backlog as of September 30, 2006 and 2005 includes $0.9 million and $1.0 million, respectively, of open orders or deferred revenue on which we anticipate no gross margin.

Gross Profit

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 or spare parts and the cost of service and factory and field support to customers for warranty, as well as installation and paid service calls. In addition, the cost of outsourcing the assembly or manufacturing of certain systems and subsystems to third parties and supplemental contract field service is included in cost of goods sold. Gross margin is gross profit as a percentage of net revenue.

	Years Ended September 30,			
Gross Profit	**2006**	**2005**	**Increase (Decrease)**	**%**
	(dollars in thousands)			
Semiconductor Equipment Segment	$ 8,461	$ 5,509	$ 2,952	54%
Polishing Supplies Segment	2,114	2,159	(45)	(2)%
Total	$ 10,575	$ 7,668	$ 2,907	38%
Gross Margin	26%	27%		

Gross profit increased in fiscal 2006 by $2.9 million, or 38%, over fiscal 2005. The increase was driven by higher shipments during the year. Gross margin was 26% in fiscal 2006 compared to 27% in fiscal 2005. Major factors that contributed to the decrease in margin percentage were an increase in profit deferred in fiscal 2006 compared to 2005, the recognition of approximately $0.7 million of revenue and an equal amount of costs related to customer acceptance of our small batch vertical furnace and lower margins on the multi-furnace order shipped during fiscal 2006. The decrease in gross margin was also impacted by a change in product mix, as the polishing supplies segment (which has higher gross margins) declined as a percentage of consolidated revenue.

The timing of revenue recognition can have a particularly significant effect on gross margin when the equipment revenue of an order is recognized in one period and the remainder of the revenue attributed to holdbacks is recognized in a later period. The portion of revenue attributed to the holdbacks generally comprises 10-20% of an order and has a significantly higher gross margin percentage.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist of the cost of employees, consultants and contractors, as well as facility costs, sales commissions, legal and accounting fees and promotional marketing expenses.

	Years Ended September 30,			
Selling, general and administrative	**2006**	**2005**	**Increase (Decrease)**	**%**
	(dollars in thousands)			
Semiconductor Equipment Segment	$ 7,111	$ 5,918	$ 1,193	20%
Polishing Supplies Segment	1,202	1,367	(165)	(12)%
Total	$ 8,313	$ 7,285	$ 1,028	14%
Percent of net revenue	21%	26%		

Total selling, general and administrative expenses as a percentage of net revenue decreased to 21% in fiscal 2006 from 26% in fiscal 2005, as a result of higher sales. The $1.0 million increase over fiscal 2005 was due to approximately $0.2 million in increased personnel costs to support the increase in revenue and the increased regulatory obligations associated with being a public company, increased commissions of approximately $0.2 million resulting from the increased revenue, $0.2 million in increased non-cash stock-based compensation costs during fiscal 2006 related to the adoption of SFAS 123(R) and increased legal fees associated with the restructuring of our legal entities in Europe and consulting costs for the initial upgrade of the software used to operate and control our operations in Europe.

Restructuring Charges

	Years Ended September 30,			
Restructuring Charge	**2006**	**2005**	**Increase (Decrease)**	**%**
	(dollars in thousands)			
Semiconductor Equipment Segment	$ 190	$	$ 190	0%
Polishing Supplies Segment				0%
Total	$ 190	$	$ 190	0%

In June 2006, we adopted a plan to consolidate the manufacturing of our automation product line into facilities already used to manufacture diffusion furnaces. Our automation products are often sold in conjunction with the sale of new diffusion furnaces. As a result of this decision, we recorded $0.2 million of restructuring charges in fiscal 2006.

Research and Development

Research and development expenses consist of the cost of employees, consultants and contractors who design, engineer and develop new products; materials and supplies used in product prototyping, including wafers, chemicals and process gases; depreciation and amortization expense; charges for repairs to research equipment; and costs of outside services for facilities, process engineering support and wafer analytical services. We also include in research and development expenses the amortization of costs associated with the preparation and filing of patents and other intellectual property. Reimbursements of these costs in the form of governmental research and development grants amounted to $0.1 million in fiscal 2006 and 2005, and are netted against these expenses.

	Years Ended September 30,			
Research and Development	**2006**	**2005**	**Increase (Decrease)**	**%**
	(dollars in thousands)			
Semiconductor Equipment Segment	$ 437	$ 627	$ (190)	(30)%
Polishing Supplies Segment				0%
Total	$ 437	$ 627	$ (190)	(30)%
Percent of net revenue	1%	2%		

Development work on the small batch vertical furnace product line in fiscal 2005 was the primary factor in the $0.2 million decrease in research and development expenses from fiscal 2006 compared to the prior year.

Income Tax Provision

In fiscal 2004, we recorded a valuation allowance for the total of our deferred tax assets, including a net operating loss carryforward. As the deferred tax assets increase or decrease, we record an additional tax provision or recognize a benefit, respectively, so that the valuation allowance remains equal to the total of our deferred tax assets. During fiscal 2006, our deferred tax assets declined by $0.2 million, resulting in a decline in our valuation allowance and an equal amount of tax benefit. This resulted in an effective tax rate for fiscal 2006 of 17.5%. Our future effective income tax rate depends on various factors, such as tax legislation, the geographic composition of our pre-tax income, the level of expenses that are not deductible for tax purposes, changes in our deferred tax assets and the effectiveness of our tax planning strategies.

Fiscal 2005 compared to 2004

Net Revenue

The following table reflects the increase in net revenue during fiscal 2005 as compared to 2004:

	Years Ended September 30,			
2005	**2004**	**Inc (Dec)**	**%**