INTEVAC INC
Form S-3
December 19, 2003

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As filed with the Securities and Exchange Commission on December 19, 2003

Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Intevac, Inc.

(Exact name of registrant as specified in its charter)

California	**94-3125814**
(State of incorporation)	*(I.R.S. Employer Identification No.)*

3560 Bassett Street
Santa Clara, California 95054
(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

Kevin Fairbairn

President and Chief Executive Officer
Intevac, Inc.
3560 Bassett Street
Santa Clara, CA 95054
(408) 986-9888
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Herbert P. Fockler, Esq.	**Scott M. Stanton, Esq.**
Wilson Sonsini Goodrich & Rosati	**Marty B. Lorenzo, Esq.**
Professional Corporation	**Gray Cary Ware & Freidenrich LLP**
650 Page Mill Road	**4365 Executive Drive, Suite 110**
Palo Alto, California 94304	**San Diego, California 92121**
(650) 493-9300	**(858) 677-1400**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

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, as amended (the Securities Act), other than securities offered only in connection with dividend or interest reinvestment plans, 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 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 number of the earlier effective registration statement for the same offering. o

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, no par value	4,600,000	$14.855	$68,333,000	$5,528.14

(1) Estimated solely for the purpose of computing the registration fee required by Section 6(b) of the Securities Act and computed pursuant to Rule 457(c) under the Securities Act based upon the average of the high and low prices of our common stock on December 16, 2003, as reported on the Nasdaq National Market.

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 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 19, 2003

PROSPECTUS

4,000,000 Shares

Common Stock

We are offering 2,500,000 shares of our common stock. The selling shareholder is offering an additional 1,500,000 shares. We will not receive any of the proceeds from the sale of shares by the selling shareholder. Our common stock is listed traded on The Nasdaq National Market under the symbol IVAC . On December 18, 2003, the last reported sale price for our common stock on The Nasdaq National Market was $14.70 per share.

Investing in our common stock involves risks. See Risk Factors beginning on page 5.

	Per Share	Total
Public Offering Price	$	$
Underwriting Discounts	$	$
Proceeds, before expenses, to Intevac	$	$
Proceeds, before expenses, to Selling Shareholder	$	$

The underwriters have an option to purchase up to 600,000 additional shares of our common stock from the selling shareholder to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved of these securities or determined if this prospectus is truthful or complete. It is illegal for any person to tell you otherwise.

Needham & Company, Inc. Thomas Weisel Partners LLC

The date of this prospectus is .

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Neither we nor any of the underwriters have authorized anyone to provide information different from that contained in this prospectus. When you make a decision about whether to invest in our common stock, you should not rely upon any information other than the information in this prospectus. Neither the delivery of this prospectus nor the sale of our common stock means that information contained in this prospectus is correct after the date of this prospectus.

In this prospectus Intevac, we, us and our refer to Intevac, Inc. and its subsidiaries. Unless otherwise indicated, all information in this prospectus assumes no exercise of the underwriters over-allotment option.

Intevac, Intevac® MDP-250, Intevac® 200 Lean, LIVAR, D-STAR and EBAPS, among others, are our registered trademarks. This prospectus also includes trademarks of other persons.

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PROSPECTUS SUMMARY

You should read the following summary together with the more detailed information concerning our company, the common stock being sold in this offering and our financial statements appearing in this prospectus and in the documents incorporated by reference in this prospectus. Because this is only a summary, you should read the rest of this prospectus and the documents incorporated by reference before you invest in our common stock. Read this entire prospectus carefully, especially the risks described under Risk Factors.

The Company

We are the world s leading provider of disk sputtering equipment for the thin-film disk industry and a developer of leading technology for extreme low light imaging devices and systems. We operate two businesses: Equipment and Imaging.

Equipment Business

Our Equipment business designs, manufactures, markets and services complex capital equipment which deposits highly engineered thin-films onto thin-film disks used in hard disk drives, the primary storage medium for digital data. We believe the rapid growth of digital data, the proliferation of new security applications and the growth of new consumer applications, such as personal video recorders, video game consoles and MP3 players, along with new technology advances in the industry, provide us with a significant growth opportunity. IDC expects that the number of hard disk drives to be shipped between 2002 and 2007 will grow at a compounded annual rate of approximately 10.7%, from 219 million units to 365 million units. In addition, we believe that the majority of thin-film disk manufacturers are capacity constrained, and three of the leading manufacturers, Hitachi Global Storage Technologies, or HGST, Maxtor and Seagate, announced significant thin-film disk manufacturing capacity expansions during 2003.

As the demand for storage capacity increases, advances in recording technology are increasing the amount of information that can be stored on a hard disk. The next generation storage technology, called perpendicular recording, greatly increases the amount of information that can be stored on a thin-film disk, but requires sputtering equipment that can accommodate additional process steps. As thin-film disk manufacturers purchase new disk sputtering equipment to meet increased demand, they also require disk sputtering equipment that will accommodate the additional process steps required for the transition to perpendicular recording.

Our systems represent approximately half of the worldwide installed base of thin-film disk sputtering systems and produced approximately half of all thin-film disks made in 2003. In the period from 1995 through the middle of 1998, we sold approximately $303 million of our disk manufacturing equipment. Our customers include the world s leading thin-film disk manufacturers, such as HGST, Komag, Maxtor and Seagate. We are one of two companies that have announced a new system designed to manufacture disks capable of perpendicular recording. In 2003, we introduced the 200 Lean, a modular disk sputtering system designed for low cost of ownership. The 200 Lean provides significantly enhanced capabilities relative to the installed base of our MDP-250 systems. During 2003, we have received orders for ten of our new 200 Lean disk sputtering systems. This is the first production order from a major hard disk drive manufacturer for a new system designed to manufacture disks capable of perpendicular recording.

We believe we can also apply our expertise in complex manufacturing systems to develop additional equipment for the hard disk drive industry and other manufacturing industries.

Imaging Business

Our Imaging business develops and manufactures electro-optical sensors, cameras and systems used for extreme low light imaging. We develop products for military and commercial applications. To date, our

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revenues have been primarily derived from research and development contracts funded by the U.S. government. Our proprietary cameras and sensors are designed as extreme low light solutions that are cost-effective, portable, high resolution, long-range and easily integrated with other digital technologies. Our extreme low light imaging products include our LIVAR target identification system and our NightVista line of extreme low light cameras. LIVAR is designed to positively identify targets, at distances of up to 20 kilometers, that have been detected but not identified by other systems. We are developing our LIVAR products in conjunction with leading organizations such as the Air Force Research Laboratory, Lockheed Martin, the Los Alamos National Laboratory, Northrop Grumman, and the U.S. Army Night Vision Laboratory. We expect to begin volume production of LIVAR systems in 2006. Our extreme low light NightVista cameras are well suited for portable, battery operated applications. We expect to begin volume production of our NightVista security camera in 2004.

We were incorporated in October 1990 in California and completed a leveraged buyout of a number of divisions of Varian Associates in February 1991. The technologies acquired from Varian formed the foundation for our Equipment and Imaging businesses. Our principal executive offices are located at 3560 Bassett Street, Santa Clara, California 95054, and our phone number is (408) 986-9888. Our Internet home page is located at www.intevac.com; however, the information in, or that can be accessed through, our home page is not part of this prospectus.

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The Offering

Common stock offered by Intevac	2,500,000 shares
Common stock offered by selling shareholder	1,500,000 shares
Common stock outstanding after this offering	19,449,798 shares
Use of proceeds	We intend to use the proceeds of the shares sold by us in this offering for working capital, repayment of debt, other general corporate purposes, and possibly acquisitions of businesses, products or technologies. See Use of Proceeds.
Nasdaq National Market symbol	IVAC

Unless otherwise indicated, the number of shares of common stock outstanding after this offering is based on shares outstanding as of December 11, 2003 and assumes no exercise of the underwriters over-allotment option. This number does not include:

- 1,420,351 shares of common stock issuable upon exercise of outstanding stock options, with a weighted average exercise price of approximately $5.20 per share;
- 118,918 shares of common stock reserved for future option grants under our stock option plan; and
- 358,197 shares of common stock reserved for future issuance under our employee stock purchase plan.

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Summary Consolidated Financial Data

(In thousands, except per share data)

The following table presents our summary consolidated financial data and should be read in conjunction with our audited consolidated financial statements, our unaudited consolidated financial statements, and the accompanying notes, included or incorporated by reference in this prospectus. You should also read Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this prospectus.

The summary consolidated statement of operations data for the years ended December 31, 2000, 2001 and 2002 has been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statement of operations data for the years ended December 31, 1998 and 1999 have been derived from our audited financial statements not included or incorporated by reference in this prospectus. The summary consolidated balance sheet data at September 27, 2003 and the summary consolidated statement of operations data for the nine-month periods ended September 28, 2002 and September 27, 2003 have been derived from our unaudited consolidated financial data included elsewhere in this prospectus and, in the opinion of our management, contain all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of our financial position and results of operations at and for such periods. The results of operations for any interim period are not necessarily indicative of the results of operations to be expected for the full year. The summary consolidated balance sheet data has also been presented on a pro forma basis to reflect the conversion of all $29,542,000 outstanding of our 6 1/2% Convertible Subordinated Notes due 2009 subsequent to September 27, 2003, and on a pro forma as adjusted basis to give effect to our receipt of the estimated net proceeds from the sale of 2,500,000 shares of common stock at the assumed public offering price of $ per share, after deducting the estimated underwriters discounts and commissions and estimated offering expenses.

	Fiscal Years Ended December 31,					Nine Months Ended	
	1998	1999	2000	2001	2002	September 28, 2002	September 27, 2003
						(unaudited)	
Consolidated Statement of Operations Data:							
Net revenues	$95,975	$ 42,962	$ 36,049	$ 51,484	$ 33,784	$21,792	$ 24,218
Gross profit	24,258	2,552	1,990	9,755	7,309	4,308	5,159
Operating loss	(452)	(21,879)	(12,363)	(11,468)	(11,289)	(9,605)	(10,044)
Net income (loss)	$ 424	$ (9,770)	$(12,324)	$(16,936)	$ 8,774	$ (5,132)	$(11,702)
Net income (loss) per share							
Basic	$ 0.04	$ (0.83)	$ (1.04)	$ (1.42)	$ 0.73	$ (0.42)	$ (0.96)
Diluted	$ 0.03	$ (0.83)	$ (1.04)	$ (1.42)	$ 0.66	$ (0.42)	$ (0.96)
Number of shares used in per share calculations							
Basic	12,052	11,777	11,803	11,955	12,077	12,065	12,206
Diluted	12,354	11,777	11,803	11,955	15,262	12,065	12,206

	As of September 27, 2003		
	Actual	Pro Forma	Pro Forma As Adjusted
		(unaudited)	
Balance Sheet Data:			
Cash and cash equivalents	$21,148	$21,148	
Working capital	19,833	19,972	
Total assets	47,366	46,866	
Long-term debt	29,542		
Total shareholders equity (deficit)	(491)	28,690	

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RISK FACTORS

You should carefully consider the risks described below before making an investment decision. The risks described below are not the only ones facing our company. Additional risks not currently known to us or that we currently believe are immaterial may also impair our business operations. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained or incorporated by reference in this prospectus, including our consolidated financial statements and related notes, before deciding to purchase any shares of our common stock.

We have a recent history of significant losses and may not regain profitability. If we do not establish profitable operations in the future, then our share price is likely to decline.

The majority of our revenues and gross profit has historically been derived from sales of disk sputtering equipment. Sales of our disk sputtering equipment have been severely depressed since the middle of 1998. Also, our Imaging business has yet to earn an annual profit. We have experienced an operating loss in each of the last five fiscal years. For the nine months ended September 27, 2003, our operating loss was $10.0 million, and as of September 27, 2003, we had an accumulated deficit of $20.7 million. To regain profitability, we will need to generate and sustain substantially higher revenue while maintaining reasonable cost and expense levels. We cannot assure you that we will regain profitability in the near future, or at all, and if we do regain profitability we cannot assure you that we will be able to sustain profitability on a going-forward basis. If we fail to regain profitability within the time frame expected by securities analysts or investors, then the market price of our common stock will likely decline.

If the projected growth in demand for hard disk drives does not materialize and our customers do not replace or upgrade their installed base of disk sputtering systems, then future sales of our disk sputtering systems will suffer.

Since the middle of 1998, there has been virtually no demand for new disk sputtering systems, as thin-film disk manufacturers have been burdened with overcapacity and have not been investing in new disk sputtering equipment. Recently, however, overcapacity has diminished, and three of our customers have announced plans for major capacity expansions. Sales of our equipment for capacity expansions are dependent on the capacity expansion plans of our customers and upon whether our customers select our equipment for their capacity expansions. We have no control over our customers expansion plans, and we cannot assure you that they will select our equipment if they do expand their capacity. Our customers may not implement capacity expansion plans, or if we may fail to win orders for equipment for those capacity expansions, which could have a material adverse effect on our business and our operating results. In addition, some manufacturers may choose to purchase used systems from other manufacturers rather than purchasing new systems from us. Furthermore, if hard disk drives were to be replaced by an alternative technology as a primary method of digital storage, demand for our products would decrease.

Sales of our new 200 Lean disk sputtering systems are also dependent on obsolescence and replacement of the installed base of disk sputtering equipment. If technological advancements are developed that extend the useful life of the installed base of systems, then any sales of our 200 Lean will be limited to the capacity expansion needs of our customers, which would have a material adverse effect on our operating results.

Our operating results fluctuate significantly from quarter to quarter, which may cause the price of our stock to decline.

Over the last 11 quarters, our revenues per quarter have fluctuated between $23.6 million and $4.6 million. Over the same period our operating loss as a percentage of revenues has fluctuated between

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approximately 90% and 1% of revenues. We anticipate that our revenues and operating margins will continue to fluctuate. We expect this fluctuation to continue for a variety of reasons, including:

- changes in the demand, due to seasonality and other factors, for the computer systems, storage subsystems and consumer electronics that contain the thin-film disks that our customers produce using our systems;
- delays or problems in the introduction of our new products; and
- announcements of new products, services or technological innovations by us or our competitors.

Additionally, because our systems are priced in the millions of dollars and we sell a relatively small number of systems, our business is inherently subject to fluctuations in revenue from quarter to quarter due to factors such as timing of orders, acceptance of new systems by our customers or cancellation of those orders. As a result, we believe that quarter-to-quarter comparisons of our revenues and operating results may not be meaningful and that these comparisons may not be an accurate indicator of our future performance. Our operating results in one or more future quarters may fail to meet the expectations of investment research analysts or investors, which could cause an immediate and significant decline in the trading price of our common shares.

We sell our equipment products to a small number of large customers.

Historically, a significant portion of our revenue in any particular period has been attributable to sales to a limited number of customers. In 2002, three of our customers, in the aggregate, accounted for 74% of our revenues. In addition, our current backlog of 200 Lean systems is from a single customer. Orders from a relatively limited number of thin-film disk manufacturers have accounted for, and likely will continue to account for, a substantial portion of our revenues. The loss of, or delays in purchasing by, any one of our large customers would significantly reduce potential future revenues. Furthermore, the concentration of our customer base may lead customers to demand pricing and other terms unfavorable to us.

We operate in an intensely competitive marketplace, and our competitors have greater resources than we do.

In the market for our disk sputtering systems, we have experienced competition from competitors such as Anelva Corporation, a subsidiary of NEC Corporation, Ulvac Technologies, Inc. and Unaxis Holdings, Ltd, each of which has sold substantial numbers of systems worldwide. In the market for our imaging products, we experience competition from companies such as ITT Industries, Inc. and Northrop Grumman Corporation, the primary U.S. manufacturers of Generation-III night vision devices and their derivative products. Our competitors have substantially greater financial, technical, marketing, manufacturing and other resources than we do. We cannot assure you that our competitors will not develop enhancements to, or future generations of, competitive products that will offer superior price or performance features. Likewise, we cannot assure you that new competitors will not enter our markets and develop such enhanced products. Accordingly, competition for our customers is intense, and our competitors have historically offered substantial pricing concessions and incentives to attract our customers or retain their existing customers.

The majority of our future revenues is dependent on new products. If these new products are not successful, then our results of operations will be adversely affected.

Our success in developing and selling new products depends upon a variety of factors, including our ability to predict future customer requirements accurately, technological advances, total cost of ownership of our systems, our introduction of new products on schedule, our ability to manufacture our systems cost-effectively and the performance of our systems in the field. Our new product decisions and development commitments must anticipate continuously evolving industry requirements significantly in advance of sales. We have invested heavily, and continue to invest, in the development of new products. Our 200 Lean disk sputtering system is designed to address the demand for increased areal density in hard disk drives and our

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customers concurrent need to produce more complex thin-film disks. Our future revenues depend on the industry recognizing the need for improved recording methodologies and the need for disk sputtering systems that facilitate manufacturing of advanced media with technologies such as perpendicular recording. Our future revenues also depend significantly on the market acceptance of our 200 Lean disk sputtering system, which we have only recently introduced and which competes against a product that has been on the market longer. Our new products will typically bear higher production and warranty costs in comparison to our more established product lines. Additionally, our gross margins on our new products may be lower and more difficult to predict. We continue to invest heavily to develop products for the thin-film disk manufacturing industry. In addition, our LIVAR target identification and low light level camera technologies are designed to offer significantly improved capability to military customers. We are also developing commercial products based on the technology we have developed in our Imaging business. None of our imaging products is currently being manufactured in commercial volumes or available for general sale, and we may encounter unforeseen difficulties when we commence general production of these products. Our Imaging business will require substantial further investment in sales and marketing, in product development and in additional production facilities, and in particular we need to acquire sensor fabrication facilities in order to expand our operations. We cannot assure you that we will succeed in these activities or generate significant sales of new products. Failure of any of these products to perform as intended, or failure to penetrate their markets and develop into profitable product lines, would have a material adverse effect on our business.

Demand for capital equipment is cyclical, which subjects our business to long periods of depressed revenues interspersed with periods of unusually high revenues.

Our Equipment business sells equipment to capital intensive industries, which sell commodity products such as disk drives. When demand for these commodity products exceeds capacity, demand for new capital equipment such as ours tends to be amplified. Conversely, when supply of these commodity products exceeds demand, the demand for new capital equipment such as ours tends to be depressed. The hard disk drive industry has historically been subject to multi-year cycles because of the long lead times and high costs involved in adding capacity.

The cyclical nature of the capital equipment industry means that in some years we will have unusually high sales of new systems, and that in other years our sales of new systems will be severely depressed. The timing, length and volatility of these cycles are difficult to predict. These changes have affected the timing and amounts of our customers capital equipment purchases and investments in new technology. For example, sales of systems for thin-film disk production have been severely depressed since the middle of 1998. In addition, our thin-film disk manufacturing customers are generally more sensitive to the cyclical nature of the hard disk drive industry, because many of their customers have internal thin-film disk manufacturing operations and will cut back their purchases of disks from outside suppliers first in an industry downturn. If we fail to anticipate or respond quickly to the industry business cycle, it could have a material adverse effect on our business.

Our sales cycle is long and unpredictable, which requires us to incur high sales and marketing expenses with no assurance that a sale will result.

The sales cycle for our equipment systems can be a year or longer, involving individuals from many different areas of our company and numerous product presentations and demonstrations for our prospective customers. Our sales process for these systems also includes the production of samples and customization of products for our prospective customers. Additionally, our Imaging business is subject to long sales cycles as a result of government procurement cycles. As a result, we may not recognize revenue from efforts to sell particular products for extended periods of time, during which we may expend substantial funds and management time and effort with no assurance that a sale will result.

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Our products are complex, constantly evolving and often must be customized to individual customer requirements.

The systems we manufacture and sell in our Equipment business have a large number of components and are highly complex, which require us to make substantial investments in research and development. If we were to fail to develop, manufacture and market new systems or to enhance existing systems, that failure would have an adverse effect on our business. We may experience delays and technical and manufacturing difficulties in future introduction or volume production of new systems or enhancements. In addition, some of the systems that we manufacture must be customized to meet individual customer site or operating requirements. In some cases, we market and commit to deliver new systems, modules and components with advanced features and capabilities that we are still in the process of designing. We have limited manufacturing capacity and engineering resources and may be unable to complete the development, manufacture and shipment of these products, or to meet the required technical specifications for these products, in a timely manner. Failure to deliver these products on time, or failure to deliver products that perform to all contractually committed specifications, could have adverse effects on our business, including rescheduling of backlog, failure to achieve customer acceptance as anticipated, unanticipated rework and warranty costs, penalties for non-performance, cancellation of orders, or return of products for credit. In addition, we may incur substantial unanticipated costs early in a product s life cycle, such as increased engineering, manufacturing, installation and support costs, that we may be unable to pass on to the customer. Sometimes we work closely with our customers to develop new features and products. In connection with these transactions, we sometimes offer a period of exclusivity to these customers. Any of these factors could have a material adverse effect on our business.

Our Imaging business depends heavily on government contracts, which are subject to immediate termination and funded in increments. The termination of or failure to fund one or more of these contracts could have a negative impact on our operations.

We sell our products directly to the U.S. government, as well as to prime contractors for various U.S. government programs. Generally, government contracts are subject to oversight audits by government representatives and contain provisions permitting termination, in whole or in part, without prior notice at the government s convenience upon the payment of compensation only for work done and commitments made at the time of termination. We cannot assure you that one or more of the government contracts under which we or our customers operate will not be terminated under these circumstances. Also, we cannot assure you that we or our customers would be able to procure new government contracts to offset the revenues lost as a result of any termination of existing contracts, nor can we assure you that we or our customers will continue to remain in good standing as federal contractors. The loss of one or more government contracts by us or our customers could have a material adverse effects on our operating results.

Furthermore, the funding of multi-year government programs is subject to congressional appropriations, and there is no guarantee that Congress will make further appropriations. The loss of funding for a government program would result in a loss of anticipated future revenues attributable to that program. That could increase our overall costs of doing business and have a material adverse effects on our operating results.

In addition, sales to the U.S. government and its prime contractors may be affected by changes in procurement policies, budget considerations and political developments in the United States or abroad. The influence of any of these factors, which are beyond our control, could also negatively impact our financial condition. We also may experience problems associated with advanced designs required by the government which may result in unforeseen technological difficulties and cost overruns. Failure to overcome these technological difficulties and the occurrence of cost overruns would have a material adverse effect on our business.

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Our sales of disk sputtering systems are dependent on substantial capital investment by our customers, far in excess of the cost of our products.

Our customers must make extremely large capital expenditures in order to purchase our systems and other related equipment and facilities. These costs are far in excess of the cost of our systems alone. The magnitude of such capital expenditures requires that our customers have access to large amounts of capital and that they be willing to invest that capital over long periods of time to be able to purchase our equipment. The thin-film disk manufacturing industry has not made significant additions to its production capacity until recently. Some of our potential customers may not be willing or able to make the magnitude of capital investment required, especially during a downturn in either the overall economy or the hard disk drive industry.

Our stock price is volatile, and you may not be able to resell your shares at or above the offering price.

The market price and trading volume of our common stock has been subject to significant volatility, and this trend may continue. In particular, our historical trading volume has been low, and the market price of our common stock has increased dramatically in recent months. Over the past 12 months, the closing price of our common stock, as traded on The Nasdaq National Market, has fluctuated from a low of $3.52 to a high of $17.35 per share. Our stock price is currently trading at or near its seven-year high. The value of our common stock may decline regardless of our operating performance or prospects. Factors affecting our market price include:

our perceived prospects;

variations in our operating results and whether we achieve our key business targets;

the limited number of shares of our common stock available for purchase or sale in the public markets;

sales or purchases of large blocks of our stock;

changes in, or our failure to meet, our earnings estimates;

changes in securities analysts buy or sell recommendations;

differences between our reported results and those expected by investors and securities analysts;

announcements of new contracts, products or technological innovations by us or our competitors;

market reaction to any acquisitions, joint ventures or strategic investments announced by us or our competitors;

our high fixed operating expenses, including research and development expenses;

developments in the financial markets; and

general economic, political or stock market conditions in the United States and other major regions in which we do business.

Recent events have caused stock prices for many companies, including ours, to fluctuate in ways unrelated or disproportionate to their operating performance. The general economic, political and stock market conditions that may affect the market price of our common stock are beyond our control. The market price of our common stock at any particular time may not remain the market price in the future. In the past, securities class action litigation has been instituted against companies following periods of volatility in the market price of their securities. Any such litigation, if instituted against us, could result in substantial costs and a diversion of management s attention and resources.

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Our dependence on suppliers for certain parts, some of them sole-sourced, makes us vulnerable to manufacturing interruptions and delays, which could affect our ability to meet customer demand.

We are a manufacturing business. Purchased parts constitute the largest component of our product cost. Our ability to manufacture depends on the timely delivery of parts, components, and subassemblies from suppliers. We obtain some of the key components and sub-assemblies used in our products from a single supplier or a limited group of suppliers. If any of our suppliers fail to deliver quality parts on a timely basis, we may experience delays in manufacturing, which could result in delayed product deliveries or increased costs to expedite deliveries or develop alternative suppliers. Development of alternative suppliers could require redesign of our products. Any or all of these factors could have a material adverse effect on our business and operating results.

Our business depends on the integrity of our intellectual property rights.

The success of our business depends upon integrity of our intellectual property rights and we cannot assure you that:

any of our pending or future patent applications will be allowed or that any of the allowed applications will be issued as patents;

any of our patents will not be invalidated, deemed unenforceable, circumvented or challenged;

the rights granted under our patents will provide competitive advantages to us;

any of our pending or future patent applications will issue with claims of the scope that we sought, if at all;

other parties will not develop similar products, duplicate our products or design around our patents; or

our patent rights, intellectual property laws or our agreements will adequately protect our intellectual property or competitive position.

Failure to protect our intellectual property rights adequately could have a material adverse effect on our business.

We provide products that are expected to have long useful lives and that are critical to our customers operations. From time to time, as part of business agreements, we place portions of our intellectual property into escrow to provide assurance to our customers that our technology will be available to them in the event that we are unable to support them at some point in the future.

From time to time, we have received claims that we are infringing third parties intellectual property rights. We cannot assure you that third parties will not in the future claim that we have infringed current or future patents, trademarks or other proprietary rights relating to our products. Any claims, with or without merit, could be time-consuming, result in costly litigation, cause product shipment delays or require us to enter into royalty or licensing agreements. Such royalty or licensing agreements, if required, may not be available on terms acceptable to us. Any of the foregoing could have a material adverse effect on our business.

Our business is based in Northern California, where operating costs are high and competition for employees is intense.

Our U.S. operations are located in Santa Clara, California, where the cost of doing business is extremely high. Failure to manage these costs well could have a material adverse effect on our operating results. Additionally, our operating results depend, in part, upon our ability to retain and attract qualified management, engineering, marketing, manufacturing, customer support, sales and administrative personnel. The cost of living in Northern California is also extremely high, which increases the cost and difficulty of recruiting new employees. Furthermore, we compete with various similar industries, such as the

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semiconductor industry, for the same pool of skilled employees. Failure to attract and retain qualified personnel could have a material adverse effect on our business.

Business interruptions, such as earthquakes or other natural or man-made disasters, could disrupt our operations and adversely affect our business.

Our U.S. facilities are located in an area of California that has experienced power outages and earthquakes and is considered seismically active. Our operations are vulnerable to interruption by fire, earthquake, power loss, telecommunications failure, unauthorized intrusion and other catastrophic events beyond our control. Our contingency plans for addressing these kinds of events may not be sufficient to prevent system failures and other interruptions in our operations that have a material adverse effect on our business. Additionally, our suppliers suffering similar business interruptions could have an adverse effect on our manufacturing ability. If any natural or man-made disasters do occur, our operations could be disrupted for prolonged periods, which could have a material adverse effect on our business.

Changes in demand caused by fluctuations in interest and currency exchange rates may reduce our international sales.

Sales and operating activities outside of the United States are subject to inherent risks, including fluctuations in the value of the U.S. dollar relative to foreign currencies, tariffs, quotas, taxes and other market barriers, political and economic instability, restrictions on the export or import of technology, potentially limited intellectual property protection, difficulties in staffing and managing international operations and potentially adverse tax consequences. We earn a significant portion of our revenue from international sales, and there can be no assurance that any of these factors will not have an adverse effect on our ability to sell our products or operate outside the United States.

We currently quote and sell the majority of our products in U.S. dollars. From time to time, we may enter into foreign currency contracts in an effort to reduce the overall risk of currency fluctuations to our business. However, there can be no assurance that the offer and sale of products denominated in foreign currencies, and the related foreign currency hedging activities, will not adversely affect our business.

Our principal competitor for disk sputtering equipment is based in Japan and has a cost structure based on the Japanese yen. Accordingly, currency fluctuations could cause the price of our products to be more or less competitive than our principal competitor s products. Currency fluctuations will decrease or increase our cost structure relative to those of our competitors, which could lessen the demand for our products and affect our competitive position.

We routinely evaluate acquisition candidates and other diversification strategies.

We have completed a number of acquisitions as part of our efforts to expand and diversify our business. For example, our business was initially acquired from Varian Associates in 1991. We acquired our gravity lubrication and rapid thermal processing product lines in two acquisitions. We sold the rapid thermal processing product line in November 2002. We also acquired our RPC electron beam processing business in late 1997, and subsequently closed this business. We intend to continue to evaluate new acquisition candidates, divestiture and diversification strategies. Any acquisition involves numerous risks, including difficulties in the assimilation of the acquired company s employees, operations and products, uncertainties associated with operating in new markets and working with new customers, and the potential loss of the acquired company s key employees. Additionally, unanticipated expenses, difficulties and consequences may be incurred relating to the integration of technologies, research and development, and administrative and other functions. Any future acquisitions may also result in potentially dilutive issuance of equity securities, acquisition- or divestiture-related write-offs or the assumption of debt and contingent liabilities. Any of the above factors could have a material adverse effect on our business.

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We use hazardous materials and are subject to risks of non-compliance with environmental and safety regulations.

We are subject to a variety of governmental regulations relating to the use, storage, discharge, handling, emission, generation, manufacture, treatment and disposal of toxic or otherwise hazardous substances, chemicals, materials or waste. If we fail to comply with current or future regulations, such failure could result in suspension of our operations, alteration of our manufacturing process, or substantial civil penalties or criminal fines against us or our officers, directors or employees. Additionally, these regulations could require us to acquire expensive remediation or abatement equipment or to incur substantial expenses to comply with them. Failure to properly manage the use, disposal or storage of, or adequately restrict the release of, hazardous or toxic substances could subject us to significant liabilities.

Investors in this offering will experience immediate and substantial dilution.

The offering price per share is substantially higher than the book value per share of our common stock. Investors purchasing common stock in this offering will, therefore, incur immediate dilution of $ in net tangible book value per share, based on an assumed offering price of $ per share. Investors will incur additional dilution upon the exercise of outstanding stock options.

Our directors and executive officers control a significant portion of our outstanding common stock.

Based on the shares outstanding on December 11, 2003, our current directors, executive officers and their affiliates, in the aggregate, beneficially owned 41.4% of our outstanding shares of common stock (28.6% after this offering). These shareholders, acting together, are able to exert significant control on matters requiring approval by our shareholders, including the election of directors and approval of significant corporate transactions.

Future sales of shares of our common stock by our officers and directors and their affiliates could cause our stock price to decline.

Substantially all of our common stock may be sold without restriction in the public markets, subject only in the case of shares held by our directors, executive officers and their affiliates to volume and manner of sale restrictions, other than Foster City LLC, the selling shareholder participating in this offering, and as otherwise described in the following sentence. We have an agreement with Foster City LLC and Redemco, LLC, both entities for which H. Joseph Smead, one of our directors, serves as the managing member, that gives Foster City LLC and Redemco, LLC the right to require us, after the end of the 180-day period following the date of this prospectus, to file a registration statement on Form S-3, registering the resale of all shares of our common stock held by Foster City LLC not sold in this offering and all 3,255,969 shares held by Redemco.

Sales of a substantial number of shares of common stock in the public market after the offering described in this prospectus or the perception that these sales could occur could materially and adversely affect our stock price and make it more difficult for us to sell equity securities in the future at a time and price we deem appropriate. Upon completion of this offering, we will have outstanding 19,449,798 shares of common stock, assuming no exercise of the underwriters over-allotment option and no exercise of outstanding options after December 11, 2003.

Our officers and directors and their direct affiliates have agreed that they will not, without the prior written consent of Needham & Company, Inc., sell or otherwise dispose of any shares of our common stock or options to acquire shares of our common stock or securities exchangeable for or convertible into shares of our common stock owned by them during the 90-day period, or 180-day period in the case of the selling shareholder, following the date of this prospectus, subject to certain exceptions. Once these contractual restrictions lapse, they will be able to sell shares of our common stock subject to certain restrictions under the Securities Act. See Principal and Selling Shareholders. If a significant number of shares of our common stock are sold in a short period of time, the market price of our common stock could decline.

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Anti-takeover provisions in our charter documents and under California law could prevent or delay a change in control, which could negatively impact the value of our common stock by discouraging a favorable merger or acquisition of us.

Our articles of incorporation authorize our board of directors to issue up to 10,000,000 shares of preferred stock and to determine the powers, preferences, privileges, rights, including voting rights, qualifications, limitations and restrictions of those shares, without any further vote or action by the shareholders. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that we may issue in the future. The issuance of preferred stock could have the effect of delaying, deterring or preventing a change in control and could adversely affect the voting power of your shares. In addition, provisions of California law could make it more difficult for a third party to acquire a majority of our outstanding voting stock by discouraging a hostile bid, or delaying or deterring a merger, acquisition or tender offer in which our shareholders could receive a premium for their shares or a proxy contest for control of our company or other changes in our management.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements under the sections entitled Prospectus Summary, Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations, Business and elsewhere in this prospectus, and in the documents incorporated by reference in this prospectus, constitute forward-looking statements. In some cases, you can identify forward-looking statements by terms such as may, will, should, expect, plan, intend, forecast, anticipate, believe, estimate, predict, potential, continue or the negative of these term terminology. The forward-looking statements contained in this prospectus involve known and unknown risks, uncertainties and situations that may cause our or our industry s actual results, level of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. You should not place undue reliance on any of our forward-looking statements.

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USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of 2,500,000 shares of common stock offered by us will be approximately $ million, assuming a public offering price of $ per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any of the proceeds from the sale of 1,500,000 shares by the selling shareholder.

We intend to use $1.0 million of the net proceeds of this offering to repay our outstanding 6 1/2% Convertible Subordinated Notes due 2004 on or before their maturity in March 2004 and the remainder of the net proceeds primarily for general corporate purposes, including working capital and capital expenditures, and possible acquisitions or investments in complementary businesses or products or to obtain the right to use complementary technologies. However, we currently have no agreements or commitments with respect to any material acquisitions or investments. We cannot specify with certainty the particular uses for the net proceeds from this offering. Accordingly, our management team will have broad discretion in applying the net proceeds. Pending such uses, we intend to invest the net proceeds of this offering in short-term, interest-bearing, investment grade obligations or government securities.

DIVIDEND POLICY

We currently anticipate that we will retain our earnings, if any, for use in the operation of our business and do not expect to pay cash dividends on our capital stock in the foreseeable future.

PRICE RANGE OF COMMON STOCK

Our common stock is listed on The Nasdaq National Market under the symbol IVAC. The table below sets forth the high and the low closing sales prices per share as reported on The Nasdaq National Market for the periods indicated.

	High	Low
Year Ended December 31, 2001:		
First Quarter	$ 5.89	$3.50
Second Quarter	5.95	4.40
Third Quarter	4.98	1.95
Fourth Quarter	4.24	2.38
Year Ended December 31, 2002:		
First Quarter	$ 4.39	$2.38
Second Quarter	5.11	2.50
Third Quarter	4.25	2.06
Fourth Quarter	4.00	3.49
Year Ended December 31, 2003:		
First Quarter	$ 5.07	$3.52
Second Quarter	6.87	3.75
Third Quarter	9.95	6.72
Fourth Quarter (through December 18, 2003)	17.35	9.70

On December 18, 2003, the last reported sale price of our common stock as reported on The Nasdaq National Market was $14.70 per share. As of December 11, 2003, there were approximately 117 holders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of shareholders, we are unable to estimate the total number of shareholders represented by these record holders.

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CAPITALIZATION

The following table sets forth our cash and cash equivalents, short-term debt and capitalization as of September 27, 2003:

- on an actual basis;
- on a pro forma basis to reflect the conversion of all $29,542,000 outstanding of our 6 1/2% Convertible Subordinated Notes due 2009 into 4,220,283 shares of common stock subsequent to September 27, 2003; and
- on a pro forma as adjusted basis to give effect to the sale of the 2,500,000 shares of common stock we offer under this prospectus at an assumed public offering price of $ per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the application of the estimated net proceeds from the offering. See Use of Proceeds.

	September 27, 2003		
	Actual	Pro Forma	Pro Forma As Adjusted
	(in thousands, except share information)		
Cash and cash equivalents	$ 21,148	$ 21,148	$
6 1/2% Convertible Subordinated Notes due 2004	$ 1,025	$ 1,025	$ 1,025
6 1/2% Convertible Subordinated Notes due 2009	$ 29,542	$	$
Shareholders equity:			
Preferred stock, no par value, 10,000,000 authorized and no shares outstanding			
Common stock, no par value, 50,000,000 authorized, 12,315,834 shares outstanding, actual; 16,536,117 shares outstanding, pro forma; 19,036,117 shares outstanding, pro forma as adjusted	20,034	49,215	
Accumulated other comprehensive income	210	210	210
Accumulated deficit	(20,735)	(20,735)	(20,735)
Total shareholders equity (deficit)	(491)	28,690	
Total capitalization	$ 29,051	$ 28,690	$

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SELECTED CONSOLIDATED FINANCIAL DATA

(In thousands, except per share data)

The following table presents our selected consolidated financial data and should be read in conjunction with our audited consolidated financial statements, our unaudited consolidated financial statements and the accompanying notes, included or incorporated by reference in this prospectus. You should also read Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this prospectus.

The following table presents selected consolidated balance sheet and statement of operations data as of and for the fiscal years ended December 31, 1998 through 2002 and for the nine month periods ended September 28, 2002 and September 27, 2003. The consolidated balance sheet data as of December 31, 2001 and 2002 and the consolidated statement of operations data for the fiscal years ended December 31, 2000, 2001 and 2002 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The consolidated balance sheet data as of December 31, 1998, 1999 and 2000 and the consolidated statement of operations data for the fiscal years ended December 31, 1998 and 1999 have been derived from our audited consolidated financial statements not included or incorporated by reference in this prospectus. The consolidated balance sheet data as of September 27, 2003 and the consolidated statement of operations data for the nine-month periods ended September 28, 2002 and September 27, 2003 are based upon our unaudited quarterly consolidated financial statements included in this prospectus. The information as of and for the nine month periods is unaudited and has been prepared on the same basis as our annual consolidated financial statements. In the opinion of management, this quarterly information reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information for the periods presented. The results of operations for the nine month period ended September 27, 2003 are not necessarily indicative of the results that may be expected for the full year ending December 31, 2003 or any future period.

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	Fiscal Year Ended December 31,					Nine Months Ended	
	1998	1999	2000	2001	2002	September 28, 2002	September 27, 2003
Consolidated Statement of Operations Data:							
Net revenues:							
Systems and components	$90,085	$ 35,895	$ 30,074	$ 43,599	$ 27,625	$ 16,790	$ 18,278
Technology development	5,890	7,067	5,975	7,885	6,159	5,002	5,940
Total net revenues	95,975	42,962	36,049	51,484	33,784	21,792	24,218
Cost of net revenues:							
Systems and components	64,481	32,511	20,658	30,025	20,009	12,630	13,745
Technology development	4,709	5,907	6,022	7,988	5,150	4,176	4,372
Goodwill write-off			1,056				
Inventory provisions	2,527	1,992	6,323	3,716	1,316	678	942
Total cost of net revenues	71,717	40,410	34,059	41,729	26,475	17,484	19,059
Gross profit	24,258	2,552	1,990	9,755	7,309	4,308	5,159
Operating expenses:							
Research and development	12,473	14,136	10,576	14,478	10,846	8,391	8,916
Selling, general and administrative	10,879	7,226	4,415	6,745	7,752	5,522	6,287
Restructuring and other	1,088	3,069	(638)				
Total operating expenses	24,710	24,431	14,353	21,223	18,598	13,913	15,203
Operating loss	(452)	(21,879)	(12,363)	(11,468)	(11,289)	(9,605)	(10,044)
Interest expense	(4,187)	(3,711)	(3,033)	(2,912)	(2,981)	(2,445)	(1,547)
Interest income and other income, net	3,176	9,831	3,072	2,473	16,452	549	(111)
Income (loss) from continuing operations before income taxes	(1,463)	(15,759)	(12,324)	(11,907)	2,182	(11,501)	(11,702)
Provision for (benefit from) income taxes	(882)	(5,989)		5,029	(6,592)	(6,369)	
Income (loss) from continuing operations	(581)	(9,770)	(12,324)	(16,936)	8,774	(5,132)	(11,702)
Income from discontinued operations, net	1,005						
Net income (loss)	$ 424	$ (9,770)	$(12,324)	$(16,936)	$ 8,774	$ (5,132)	$(11,702)
Basic earnings per share:							
Income (loss) from continuing operations	$ (0.05)	$ (0.83)	$ (1.04)	$ (1.42)	$ 0.73	$ (0.42)	$ (0.96)
Net income (loss)	$ 0.04	$ (0.83)	$ (1.04)	$ (1.42)	$ 0.73	$ (0.42)	$ (0.96)
Shares used in per share calculations	12,052	11,777	11,803	11,955	12,077	12,065	12,206
Diluted earnings per share:							
Income (loss) from continuing operations	$ (0.05)	$ (0.83)	$ (1.04)	$ (1.42)	$ 0.66	$ (0.42)	$ (0.96)
Net income (loss)	$ 0.03	$ (0.83)	$ (1.04)	$ (1.42)	$ 0.66	$ (0.42)	$ (0.96)
	12,354	11,777	11,803	11,955	15,262	12,065	12,206

Shares used in per share calculations						

	As of December 31,					As of September 27, 2003
	1998	1999	2000	2001	2002	
Balance Sheet Data:						
Cash and cash equivalents	$ 60,916	$40,895	$38,403	$18,157	$28,457	$21,148
Working capital	77,774	51,579	41,093	27,160	31,309	19,833
Total assets	122,976	94,382	83,936	60,165	60,298	47,366
Long-term debt	59,461	43,188	41,245	37,545	30,568	29,542
Total shareholders equity (deficit)	40,436	29,623	17,804	1,408	10,545	(491)

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MANAGEMENT S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

Our operations include two businesses, an Equipment business and an Imaging business. Our Equipment business consists of the Equipment Products Division, which we refer to as EPD, and our Imaging business consists of two divisions, the Photonics Technology Division, which we refer to as PTD, and the Commercial Imaging Division, which we refer to as CID. The Equipment Products Division designs, manufactures, markets and services complex capital equipment that deposits highly engineered thin films of material onto disks used in hard disk drives; the Photonics Technology Division is developing extreme low light sensors, cameras and systems for sale to military and government markets; and the Commercial Imaging Division is developing commercial extreme low light sensors and cameras based on our technology.

Equipment Business

In the early 1990s we developed a system to deposit magnetic films and protective overcoats onto thin-film disks used in hard disk drives. This system gained wide acceptance and by the late 1990s was being used to manufacture approximately half of the thin-film disks used in hard disk drives worldwide. We believe that there are approximately 90 Intevac systems currently in use in production and research and development applications. Also in the late 1990s, the hard disk drive industry went through significant consolidation, and there are now only eight significant manufacturers of thin-film disks, some of whom also manufacture hard disk drives. As a result of an increasingly smaller number of customers and the high average selling price of our products, our equipment revenues tend to be volatile from quarter to quarter. In addition, our Equipment business has historically been subject to capital spending cycles. For example, in the period from 1995 through the middle of 1998, we sold $303 million of disk manufacturing equipment. Since then, our disk equipment revenues have averaged approximately $20 million per year and have consisted primarily of the sale of research and development systems, technology upgrades, parts and service for the installed base of our systems.

We believe the majority of thin-film disk manufacturers are now utilizing most of their capacity. During 2003, three of these manufacturers announced plans for major thin-film disk manufacturing capacity expansions. Also during 2003, we received orders from one customer for ten of our 200 Lean disk sputtering system. We believe that the expected introduction in 2005 of high density thin-film disks based on perpendicular recording techniques will also require thin-film disk manufacturers to significantly upgrade the technical capability of their installed base of manufacturing equipment to accommodate the additional number of process steps predicted to be required by perpendicular recording technology roadmaps.

We have also manufactured both deposition and rapid thermal processing equipment used in the manufacture of flat panel displays. Since 2000, revenues from sales of flat panel display manufacturing systems totaled $36.5 million. In late 2002 we sold our rapid thermal processing product line to Photon Dynamics of San Jose, California. Since then, we have focused our sputtering equipment efforts on disk manufacturing and have not taken orders for any new flat panel display manufacturing systems.

Imaging Business

Our Imaging business develops and manufactures electro-optical sensors, cameras and systems that permit highly sensitive detection of photons in the visible and near infrared portions of the spectrum, allowing imaging in extreme low light situations. The majority of the funding for our Photonics Technology Division s activities has come from research and development contracts with the United States Government and its contractors, with the balance being funded internally. Our military products include LIVAR systems for positive target identification at long range and extreme low light sensors and cameras for use in short- to medium-range military applications.

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Developing advanced products for the military involves long development cycles, as products move through successive multi-year stages of technology demonstration, engineering and manufacturing product development, prototype production and then product deployment. Each stage in this process requires ongoing government funding. To date, the majority of our Imaging business revenues has been derived from contract research and development, rather than product sales. In July 2002, in order to shorten the time to market and to increase the number of markets for our imaging products, we began to develop imaging products for commercial markets. We have developed a NightVista security camera and are planning to develop and introduce products that address other commercial markets. Revenues from these activities have not yet been material, and we have funded the development of the products in our Commercial Imaging Division internally.

Critical Accounting Policies and Estimates

Management s discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States (US GAAP). We review the accounting policies we use in reporting our financial results on a regular basis. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, accounts receivable, inventories, income taxes, warranty obligations, long-lived assets, contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for our judgments about the carrying value of assets and liabilities. Results may differ from these estimates due to actual outcomes being different from those on which we based our assumptions. Significant estimates and judgments are reviewed by the audit committee and discussed with our auditors at the end of each quarter prior to the public release of our financial results.

Our significant accounting policies are described in Note 2 to the consolidated financial statements included elsewhere in this prospectus. We believe the following critical accounting policies affect the more significant judgments and estimates we make in preparing our consolidated financial statements.

Revenue Recognition

We recognize revenue using guidance from SEC Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Our policy allows revenue recognition when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, and collectibility is reasonably assured. On January 1, 2003, we changed our revenue recognition policy for system orders received after December 31, 2002.

System Revenue Recognition for Orders Received After December 31, 2002. Certain of our system sales with customer acceptance provisions are accounted for as multiple-element arrangements. If we have previously met defined customer acceptance levels with the specific type of system, then we recognize revenue for the fair market value of the system upon shipment and transfer of title, and recognize revenue for the fair market value of installation and acceptance services when those services are completed. For systems that have generally not been demonstrated to meet product specifications prior to shipment, revenue recognition is usually deferred until customer acceptance. In the event that our customer chooses not to complete installation and acceptance, and our obligations under the contract to complete installation, acceptance or any other tasks, with the exception of warranty obligations, have been fully discharged, then we recognize any remaining revenue to the extent that collectibility under the contract is reasonably assured.

The revenue recognition policy outlined above and implemented for system orders received after December 31, 2002 was adopted to better conform our revenue recognition policies to industry accounting practice for companies selling similar equipment. The effect of adopting this policy in years prior to 2003

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would have been no change in 2002 revenues, a decrease in 2001 revenues of $1.5 million, and an increase of 2000 revenues of $1.5 million. The effect on net income of adopting this policy in years prior to 2003 would have been no effect on 2002 net income, an increase in 2001 net loss of $33,000, and a decrease in 2000 net loss of $33,000. There would have been no effect on earnings per share in any of the three years. The adoption of this policy had no effect on revenues or net income for the period ended September 27, 2003.

System Revenue Recognition for Orders Received Before December 31, 2002. Revenues for systems that were ordered prior to December 31, 2002 are recognized upon customer acceptance. For memory and flat panel systems shipped through a distributor, revenue is typically recognized after the distributor has accepted the system at our factory and the system has been shipped. For memory and flat panel systems sold directly to end customers, revenue is recognized after installation and acceptance of the system at the customer site. When we believe that there may be higher than normal end user installation and acceptance issues for systems shipped through a distributor, such as when the first unit of a newly designed system is delivered, we defer revenue recognition until the distributor s customer has also accepted the system.

Accounting Treatment for Systems. For periods both before and after December 31, 2002, during the period that a system is undergoing customer acceptance (either distributor or end user), the value of the system remains in inventory, and any payments received, or amounts invoiced, related to the system are included in customer advances. When revenue is recognized on the system, the inventory is charged to cost of net revenues, the customer advance is liquidated, and the customer is billed for the unpaid balance of the system revenue.

Other Systems and Non-System Revenue Recognition. Revenues for systems without installation and acceptance provisions, as well as revenues from technology upgrades, spare parts, consumables and prototype products built by PTD and CID are generally recognized upon shipment. Service and maintenance contract revenue, which to date has been insignificant, is recognized ratably over applicable contract periods or as the service is performed.

Obligations After Shipment. Our shipping terms are generally FOB shipping point, but in some cases are FOB destination. For systems sold directly to the end user, our obligations remaining after shipment typically include installation, end user factory acceptance and warranty. For systems sold to distributors, typically the distributor assumes responsibility for installation and end user customer acceptance. In some cases, the distributor will assume some or all of the warranty liability. For products other than systems and system upgrades, warranty is the only obligation we have after shipment.

Technology Development Revenue Recognition. We perform best efforts research and development work under various government-sponsored research contracts. Typically, for each contract, we commit to perform certain research and development efforts up to an agreed upon amount. In connection with these contracts, we receive funding on an incremental basis up to a ceiling. Some of these contracts are cost sharing in nature, where we are reimbursed for a portion of the total costs expended. Revenue on these contracts is recognized in accordance with contract terms, typically as costs are incurred. In the event that total cost incurred under a particular contract over-runs its agreed upon amount, we may be liable for the additional costs.

These contracts are accounted for under ARB No. 43, Chapter 11, Section A, which addresses Cost-Plus-Fixed-Fee Contracts. The contracts are all cost-type, with financial terms that are a mixture of fixed fee, no fee and cost sharing. The deliverables under each contract range from providing reports to providing prototype hardware. In none of the contracts is there an obligation for either party to continue the program once the funds have been expended. The efforts can be terminated at any time for convenience, in which case we would be reimbursed for our actual incurred costs, plus fee, if applicable, for the completed effort. We own the entire right, title and interest to each invention discovered under the contract, unless we specifically give up that right. The U.S. Government has a paid-up license to use any invention/intellectual property developed under these contracts for government purposes only. In addition, we have, from time to time, negotiated with third parties to fund a portion of our costs in return for granting them a joint interest in the technology rights developed pursuant to the contract.

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Inventories

We make provisions for potentially excess and obsolete inventory based on backlog and forecasted demand. However, order backlog is subject to revisions, cancellations and rescheduling. Actual demand will inevitably differ from forecasted demand due to a number of factors. For example, disk industry consolidation has led to the availability of some used equipment that competes at very low prices with our products. Financial stress and consolidation in our customer base can also lead to the cancellation of orders for products after we have incurred substantial costs related to those orders. Such problems have resulted, and may continue to result, in excess and obsolete inventory and the creation of related reserves.

Warranty

Our typical warranty is 12 months from customer acceptance. In some cases we market extended warranty periods beyond 12 months to our customers. The warranty period on used systems is generally shorter than 12 months. During this warranty period any necessary non-consumable parts are supplied and installed. The warranty period on consumable parts is limited to their reasonable usable life. A provision for the estimated warranty cost is recorded at the time revenue is recognized.

Valuation of Long-Lived and Intangible Assets and Goodwill

We assess the impairment of identifiable intangibles, long-lived assets and goodwill annually and whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include the following:

significant under-performance relative to expected historical or projected future operating results;

significant changes in the manner of our use of the assets or the strategy for our overall business;

significant negative industry or economic trends;

significant decline in our stock price for a sustained period; and

our market capitalization relative to net book value.

When we determine that the carrying value of long-lived assets, intangibles or goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment based on a projected discounted cash flow method, using a discount rate determined by our management to be commensurate with the risk inherent in our current business model.

Prototype Costs

Prototype product costs that are not paid for under research and development contracts and are in excess of fair market value are charged to research and development expense.

Results of Operations

Three Months Ended September 27, 2003 and September 28, 2002.

Net revenues. Net revenues consist primarily of sales of equipment used to manufacture thin-film disks, equipment used to manufacture flat panel displays, related equipment and system components and contract research and development related to the development of electro-optical devices and systems. Net revenues increased 13% to $7.6 million for the three months ended September 27, 2003 from $6.7 million for the three months ended September 28, 2002.

Equipment Products Division revenues increased to $5.0 million for the three months ended September 27, 2003 from $4.8 million for the three months ended September 28, 2002. The increase in EPD revenue was the result of an increase in shipments of disk technology upgrades

partially offset by a decrease in revenue from flat panel manufacturing systems and from spare parts. Net revenues for the three months ended September 28, 2002 included $2.5 million of sales of rapid thermal processing

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equipment, a product line we sold in November 2002. Net revenues from the Photonics Technology Division increased to $2.7 million for the three months ended September 27, 2003 from $2.0 million for the three months ended September 28, 2002 as a result of increased revenue from contract research and development. We expect that PTD revenues will increase in the fourth quarter of 2003 relative to the third quarter of 2003 as a result of increased shipments of LIVAR cameras for development applications.

International sales increased 6% to $4.4 million for the three months ended September 27, 2003 from $4.1 million for the three months ended September 28, 2002. The increase in international sales was primarily due to an increase in net revenues from disk technology upgrades partially offset by a decrease in revenue from flat panel manufacturing systems. International sales constituted 58% of net revenues for the three months ended September 27, 2003 and 61% of net revenues for the three months ended September 28, 2002.

Backlog. Our backlog of orders for our products was $24.1 million at September 27, 2003 and $30.3 million at September 28, 2002. The reduction was due to a decrease in the number of flat panel manufacturing systems on order and the sale of the rapid thermal processing product line in November 2002 partially offset by an increase in the number of disk manufacturing systems on order. During the three months ended September 27, 2003 we received orders for two 200 Lean and two MDP-250 disk sputtering systems. We include in backlog the value of purchase orders for our products that have scheduled delivery dates. Following the end of the quarter, we received orders for eight additional 200 Lean disk sputtering systems, which are not included in the $24.1 million of reported backlog at September 27, 2003.

Gross margin. Cost of net revenues consists primarily of purchased materials, fabrication, assembly, test and installation labor and overhead, customer-specific engineering costs, warranty costs, royalties, provisions for inventory reserves, scrap and costs attributable to contract research and development. Gross margin was 38% for the three months ended September 27, 2003 as compared to 20% for the three months ended September 28, 2002.

Gross margin in EPD increased to 45% in the three months ended September 27, 2003 from 19% in the three months ended September 28, 2002. EPD margins in the third quarter of 2003 were favorably impacted by the mix of revenue that was heavily weighted with disk technology upgrades and by improved absorption of overhead due to increased manufacturing activity as compared to the third quarter of 2002. Of EPD s backlog at September 27, 2003, $3.7 million relates to our D-STAR flat panel display products that will not generate any significant gross margin. Our goal is to achieve gross margins in EPD of 35% or greater in fiscal 2004. However, EPD gross margin will vary depending on a number of factors, including, factory utilization, success of our cost reduction programs, achievement of aggressive cost targets on our new 200 Lean system, the relative proportion of revenue derived from system sales versus upgrade and spares sales, and the relative proportion of revenue derived from low margin flat panel display manufacturing equipment and pricing achieved on future orders.

PTD gross margins increased to 24% during the three months ended September 27, 2003 from 23% during the three months ended September 28, 2002. PTD gross margins were favorably impacted by the mix of revenues derived from prototype products and fully funded research and development contracts versus cost-shared research and development contracts. We expect that PTD gross margins for the fourth quarter of 2003 will continue to improve based on the majority of revenues being derived from fully funded research and development contracts and from prototype products.

Research and development. Research and development expense consists primarily of prototype materials, salaries and related costs of employees engaged in ongoing research, design and development activities for disk manufacturing equipment, flat panel manufacturing equipment, imaging products and company funded research performed by PTD. Research and development expense increased to $3.2 million for the three months ended September 27, 2003 from $2.3 million for the three months ended September 28, 2002, representing 42% and 34%, respectively, of net revenue. The increase was primarily the result of spending incurred for the development of the 200 Lean disk sputtering system and

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commercial imaging products, partially offset by reduced spending for development of flat panel manufacturing equipment.

Research and development expenses do not include costs of $1.8 million and $1.4 million, respectively for the three-month periods ended September 27, 2003 and September 28, 2002 related to contract research and development performed by the Photonics Technology Division. These expenses are included in cost of net revenues.

Research and development expenses also do not include costs of $25,000 and $84,000 in the three-month periods ended September 27, 2003 and September 28, 2002, respectively, reimbursed under the terms of various research and development cost sharing agreements.

Selling, general and administrative. Selling, general and administrative expense consists primarily of selling, marketing, customer support, production of customer samples, financial, travel, management, liability insurance, legal and professional services, and bad debt expense. All domestic sales and international sales of disk manufacturing systems in Singapore, Malaysia and Taiwan are made by our direct sales force, whereas other international sales of disk manufacturing products and other products are made by distributors and representatives that provide services such as sales, installation, warranty and customer support. We also have a subsidiary in Singapore to support disk equipment customers in Southeast Asia. We are increasing staff at our Singapore subsidiary during the second half of 2003 to provide an improved level of customer service and support to our Southeast Asian customers.

Selling, general and administrative expense increased to $2.2 million for the three months ended September 27, 2003 from $2.0 million for the three months ended September 28, 2002, representing 29% of net revenue in each period. The increase was the result of $275,000 of surplus facility costs being recorded in selling, general and administrative expense partially offset by a reduction in commissions paid to manufacturer s representatives.

Interest expense. Interest expense consists primarily of interest on our convertible notes. Interest expense decreased to $522,000 in the three months ended September 27, 2003 from $1.1 million in the three months ended September 28, 2002. Interest expense in 2002 included the write-off of $368,000 of the debt issuance costs related to our convertible notes due in 2004 and the write-off of $140,000 of the offering costs related to the convertible note exchange.

Interest income and other, net. Interest income and other, net totaled $132,000 and $194,000 for the three months ended September 27, 2003 and September 28, 2002, respectively. Interest income and other, net in both 2003 and 2002 consisted primarily of interest and dividend income on investments. Interest income declined in 2003 due to lower interest rates earned on our invested funds.

Provision for (benefit from) income taxes. For both the three-month periods ended September 27, 2003 and September 28, 2002, we did not accrue a tax benefit due to the inability to realize additional refunds from loss carry-backs. Our $16.2 million deferred tax asset is fully offset by a $16.2 million valuation allowance, resulting in a net deferred tax asset of zero at September 27, 2003.

Nine Months Ended September 27, 2003 and September 28, 2002.

Net revenues. Net revenues increased 11% to $24.2 million for the nine months ended September 27, 2003 from $21.8 million for the nine months ended September 28, 2002. EPD revenues increased to $17.8 million for the nine months ended September 27, 2003 from $16.3 million for the nine months ended September 28, 2002. The increase in EPD revenues was due primarily to increases in revenues from flat panel manufacturing systems and from technology upgrades and spare parts, partially offset by a decrease in revenues from disk manufacturing systems. Net revenues for the nine months ended September 28, 2002 included $5.0 million of sales of rapid thermal processing equipment, a product line we sold in November 2002. PTD revenues increased to $6.4 million for the nine months ended September 27, 2003 from $5.5 million for the nine months ended September 28, 2002. The increase in PTD sales was due to increased revenue from contract research and development.

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International sales increased 32% to $16.4 million for the nine months ended September 27, 2003 from $12.4 million for the nine months ended September 28, 2002. The increase in international sales during nine months ended September 27, 2003 was primarily due to increases in revenues from flat panel manufacturing systems and from technology upgrades and spare parts. International sales constituted 68% of net revenues for the nine months ended September 27, 2003 and 57% of net revenues for the nine months ended September 28, 2002.

Gross margin. Gross margin was 21% for the nine months ended September 27, 2003 as compared to 20% for the nine months ended September 28, 2002. EPD gross margin was 21% and 22% for the nine months ended September 27, 2003 and September 28, 2002, respectively. The decrease in EPD gross margin was primarily due to $7.3 million of flat panel system revenue contributing minimal gross margin and to the establishment in 2003 of $0.8 million of inventory reserves. PTD gross margin increased to 22% for the nine months ended September 27, 2003 from 14% for the nine months ended September 28, 2002. PTD gross margins were favorably impacted by the mix of sales derived from prototype products and from fully funded research and development contracts versus cost-shared research and development contracts.

Research and development. Company funded research and development expense increased 6% to $8.9 million for the nine months ended September 27, 2003 from $8.4 million for the nine months ended September 28, 2002, representing 37% and 39%, respectively, of net revenue. The increase was primarily the result of higher spending for the development of disk manufacturing equipment and for commercial imaging products partially offset by decreases in spending for the development of flat panel manufacturing equipment.

Research and development expenses do not include costs of $4.4 million and $4.2 million, respectively, for the nine-month periods ended September 27, 2003 and September 28, 2002 related to contract research and development performed by PTD. These expenses are included in cost of net revenues.

Research and development expenses also do not include costs of $99,000 and $285,000, respectively, in the nine-month periods ended September 27, 2003 and September 28, 2002, reimbursed under the terms of various research and development cost sharing agreements.

Selling, general and administrative. Selling, general and administrative expense increased to $6.3 million for the nine months ended September 27, 2003 from $5.5 million for the nine months ended September 28, 2002, representing 26% and 25%, respectively, of net revenue. The increase was primarily the result of $907,000 of surplus facility costs being recorded in selling, general and administrative expense.

Interest expense. Interest expense decreased to $1.5 million for the nine months ended September 27, 2003 from $2.4 million for the nine months ended September 28, 2002. The decrease in interest expense was due to 2002 including the write-off of $368,000 of the debt issuance costs related to our convertible notes due in 2004 and the write-off of $140,000 of the offering costs related to the convertible note exchange and to a reduction in convertible notes outstanding as a result of the exchange offer.

Interest income and other, net. Interest income and other, net totaled ($111,000) and $549,000 for the nine months ended September 27, 2003 and September 28, 2002, respectively. Interest income and other, net in 2003 consisted primarily of $497,000 of interest and dividend income on investments offset by the establishment of a $638,000 reserve related to the disposition of fixed assets. Interest income and other, net in 2002 consisted primarily of interest and dividend income on investments.

Provision for (benefit from) income taxes. For the nine months ended September 27, 2003, we did not accrue a tax benefit due to the inability to realize additional refunds from loss carry-backs. We accrued a tax benefit of $6.4 million for the nine-month period ended September 28, 2002.

Fiscal Years Ended December 31, 2003, December 31, 2002 and December 31, 2000

Net revenues. Net revenues consist primarily of sales of equipment used to manufacture thin-film disks, equipment used to manufacture flat panel displays, related equipment and system components, and

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contract research and development related to the development of electro-optical devices and systems. Net revenues totaled $33.8 million, $51.5 million and $36.0 million in 2002, 2001 and 2000, respectively.

Equipment Products Division revenues totaled $27.1 million, $42.7 million and $28.8 million in 2002, 2001 and 2000, respectively. EPD revenues decreased in 2002 due to a decrease in sales of flat panel manufacturing systems and disk system upgrades and components, partially offset by an increase in sales of disk manufacturing systems. EPD revenues increased in 2001 from 2000 due to an increase in sales of flat panel manufacturing systems, partially offset by a decrease in sales of disk manufacturing systems, disk systems upgrades and components. We delivered, and recognized revenue on, five of our D-STAR deposition systems during 2001. During 2002 EPD delivered upgrades to the five systems and one new D-STAR system. Revenue recognition on the five upgrades and one new system was pending final customer acceptance at December 31, 2002. Net revenues for 2002 and 2001 include $7.1 million and $6.8 million, respectively, of sales of rapid thermal processing equipment, a product line the Company sold in November 2002. There were no sales of rapid thermal processing equipment in 2000. EPD s fabrication center, which manufactured machined parts, contributed sales to outside customers of $0.6 million, $1.8 million and $5.0 million in 2002, 2001 and 2000, respectively. The fabrication center was closed in September 2002. EPD plans to replace the fabrication center with a smaller model shop during 2003. The model shop will manufacture engineering prototypes and parts for use in our products.

The thin-film disk manufacturing industry has now consolidated into a small number of large manufacturers. We believe that the majority of our active customers now utilize most of their capacity and that there is significant potential for these customers to both resume adding capacity and to upgrade the technical capability of their installed base to permit production of high density disks for perpendicular recording rather than the current longitudinal technology. However, we are not able to accurately predict when our customers will begin placing significant equipment orders again, or if they will place those orders with us, and this subjects us to a high degree of uncertainty in projecting our 2003 revenue.

Photonics Technology Division revenues totaled $6.6 million, $8.8 million and $7.2 million in 2002, 2001 and 2000, respectively. PTD revenues decreased in 2002 as a result of a decrease in revenues from contract research and development. PTD revenues increased in 2001 over 2000 as the result of increased revenues from contract research and development. PTD revenues in 2003 are expected to be primarily derived from contract research and development, but with some increase in revenue from LIVAR target identification systems. Substantial growth in future PTD revenues is dependent on PTD proliferating its technology into major military weapons programs and obtaining production subcontracts for these programs.

The Commercial Imaging Division was formed in July 2002 with the charter of developing commercial products based on PTD technology. CID also assumed responsibility from PTD for activities related to the development of photodiodes for use in high-speed fiber optic systems. CID s 2002 revenues totaled $43,000 related to the sale of sample photodiodes. Further development of these photodiodes was suspended at the end of 2002 due to weak market conditions in the telecommunications industry. CID expects to initiate the sale of commercial products based on PTD s LIVAR and low light level technology during 2003, but does not expect to realize significant revenues from these products in 2003.

Our backlog of orders at December 31, 2002 was $18.2 million, as compared to a December 31, 2001 backlog of $30.6 million. The $18.2 million of backlog at December 31, 2002 consisted of $15.0 million of EPD backlog and $3.2 million of PTD backlog. The $30.6 million of backlog at December 31, 2001 consisted of $26.5 million of EPD backlog and $4.1 million of PTD backlog. The reduction in EPD backlog was primarily due to a reduction in the number of rapid thermal processing systems and disk manufacturing systems on order. Most of our backlog at December 31, 2002 is scheduled for either customer acceptance or delivery during the first half of 2003. We need to book substantial orders in 2003 in order for 2003 sales to meet or exceed 2002 sales.

Significant portions of our revenues in any particular period have been attributable to sales to a limited number of customers. In 2002, Seagate, Toppoly and the U.S. Army Communications-Electronics Command each accounted for more than 10% of our consolidated net revenues and in aggregate accounted

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for 74% of consolidated net revenues. In 2001, equipment sales through Matsubo, our Japanese distributor, accounted for 49% of consolidated net revenues. In 2000, MMC Technology, Matsubo, Seagate and Westt each accounted for more than 10% of our consolidated net revenues and in aggregate accounted for 56% of consolidated net revenues. Our largest customers tend to change from period to period.

International sales totaled $17.5 million, $37.3 million and $9.6 million in 2002, 2001 and 2000, respectively, accounting for 52%, 73% and 27% of net revenues. The decrease in international sales in 2002 compared to 2001 was primarily due to a decrease in net revenues from flat panel manufacturing systems, and to a lesser extent, to a decrease in net revenues from disk system upgrades and components. The increase in international sales in 2001 over 2000 was primarily due to an increase in net revenues from flat panel manufacturing systems. Substantially all of our international sales are to customers in the Far East.

Gross margin. Cost of net revenues consists primarily of purchased materials, fabrication, assembly, test and installation labor and overhead, customer-specific engineering costs, warranty costs, royalties, provisions for inventory reserves, scrap and costs attributable to contract research and development. Gross margin was 22%, 19% and 6% in 2002, 2001 and 2000, respectively.

Gross margin in EPD was 25%, 23% and 12% in 2002, 2001 and 2000, respectively. EPD gross margin in 2002 improved slightly over 2001 due primarily to lower production costs and by a reduction in inventory provisions, partially offset by the under-absorption of manufacturing overhead due to low manufacturing volume. EPD gross margin improved from 2000 to 2001, but was tempered by high initial costs to manufacture our redesigned flat panel manufacturing systems and establishment of $2.4 million of inventory reserves related to a cancelled order for a custom flat panel system. 2001 EPD gross margin excluding the effect of the inventory reserve would have been 29%. EPD gross margin in 2000 was negatively impacted by establishment of $5.1 million of reserves related to slow moving equipment inventory and an $0.8 million write-off of goodwill related to electronically swept source technology, which was acquired in 1996 and subsequently abandoned. 2000 Equipment gross margin excluding the effect of these two items would have been 32%. $11.1 million of EPD s backlog at December 31, 2002 relates to D-STAR products that will not generate any significant gross margin. We are not able to accurately project the 2003 gross margin for the balance of the equipment business as it will vary depending on a number of factors, including, factory utilization and pricing achieved on future orders.

Gross margin in PTD was 10%, (2%) and (8%) in 2002, 2001 and 2000, respectively. PTD gross margins improved in 2002 due to a higher portion of the revenue being derived from fully funded research and development contracts. PTD gross margins in 2001 and 2000 were negatively impacted by a significant portion of revenue being derived from cost-sharing research and development contracts versus fully funded research and development contracts. We expect that 2003 PTD gross margins will improve based on the majority of revenues being derived from fully funded research and development contracts and from prototype products.

Research and development. Research and development expense consists primarily of prototype materials, salaries and related costs of employees engaged in ongoing research, design and development activities for disk manufacturing equipment, flat panel manufacturing equipment, imaging products and company funded research performed by PTD. Research and development expense totaled $10.8 million, $14.5 million and $10.6 million in 2002, 2001 and 2000, respectively, representing 32%, 28% and 29% of net revenue. The dollar decrease from 2001 to 2002 was the result of the completion during 2001 of the design activities related to development of the D-STAR, RTP and MDP-200 platforms, partially offset by increased expenses related to the development of CID products and PTD technology and products. The dollar increase from 2000 to 2001 was primarily the result of increased expenses related to the development and redesign of flat panel manufacturing equipment and, to a lesser extent, the development of PTD technology and products. We expect that research and development expenses in 2003 will be slightly lower than in 2002 as a result of the sale of the rapid thermal processing product line, partially offset by projected increases in CID and in PTD.

Research and development expenses do not include costs of $5.2 million, $8.0 million and $6.0 million in 2002, 2001 and 2000, respectively, related to PTD contract research and development, which are

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included in cost of net revenues. Research and development expenses also do not include costs of $0.3 million, $0.5 million and $0.7 million incurred by us in 2002, 2001 and 2000, respectively, and reimbursed under the terms of research and development cost sharing agreements related to development of disk and flat panel manufacturing equipment.

Selling, general and administrative. Selling, general and administrative expense consists primarily of selling, marketing, customer support, production of customer samples, financial, travel, management, liability insurance, legal and professional services and bad debt expense. Domestic sales and international sales of disk manufacturing products in Singapore, Malaysia and Taiwan are made by our direct sales force, whereas other international sales of disk manufacturing and other products are made by distributors and representatives that provide services such as sales, installation, warranty and customer support. We also have a subsidiary in Singapore to support customers in Southeast Asia. Through the second quarter of 2000, we marketed our flat panel manufacturing equipment to the Far East through our Japanese joint venture, IMAT. During the third quarter of 2000 we and our joint venture partner, Matsubo, transferred IMAT s activities and employees to Matsubo, which became a distributor of our flat panel products, and shut down the operations of IMAT.

Selling, general and administrative expense totaled $7.8 million, $6.7 million and $4.4 million in 2002, 2001, and 2000, respectively, representing 23%, 13% and 12% of net revenue. The increase in 2002 over 2001 was primarily the result of representative commissions paid on the sale of flat panel manufacturing systems, an increase in selling, general and administrative personnel in PTD and an increase in corporate general and administrative expenses. The increase from 2000 to 2001 was primarily due to a $1.5 million credit to bad debt expense recognized in 2000. We expect that selling, general and administrative expenses will increase in 2003 over 2002 due to an increase in marketing resources, the charge for underutilized space and higher charges for directors and officers insurance.

Restructuring and other. Restructuring and other was a gain of $0.6 million in 2000. During the third quarter of 1999, we adopted an expense reduction plan that included closing one of the buildings at our Santa Clara facility and a reduction in force of 7 employees. We incurred a charge of $2.2 million in 1999 related to the expense reduction plan. In the fourth quarter of 1999, $0.1 million of the restructuring reserve was reversed due to lower than expected costs on the closure of the facility. During the first quarter of 2000, we vacated the building and negotiated a lease termination for that space with our landlord, which released us from the obligation to pay any rent after April 30, 2000. As a result, we reversed $0.6 million of the restructuring reserve during the first quarter of 2000. During the third quarter of 2000, we completed all activities related to closing the vacated portion of the building and reversed the remaining $23,000 of the restructuring reserve.

Interest expense. Interest expense consists primarily of interest on the convertible notes, amortization of debt issuance costs, and, to a lesser extent in 2000, interest on approximately $2.0 million of long-term debt related to the purchase of Cathode Technology in 1996. Interest expense totaled $3.0 million, $2.9 million and $3.0 million in 2002, 2001 and 2000, respectively. The increase in interest expense in 2002 over 2001 was due primarily to the write-off of $0.5 million of debt offering costs from the original convertible note offering in 1997 as a result of the exchange of these notes for new convertible notes in July 2002. The decline in interest expense in 2001 from 2000 was primarily the result of our repurchase of $3.7 million of the convertible notes during 2001, and, to a lesser extent, the repayment of the Cathode Technology debt in January 2001. Interest expense on our outstanding convertible notes is expected to be $2.1 million in 2003.

Interest income and other, net. Interest income and other, net totaled $16.5 million, $2.5 million and $3.1 million in 2002, 2001 and 2000, respectively. Interest income and other, net in 2002 consisted of $0.3 million of interest income on investments, a $15.4 million gain on the sale of the rapid thermal processing product line, a $0.3 million gain on the sale of fixed assets, $0.4 million of dividends from 601 California Avenue LLC and $0.1 million of early payment discounts and other income. Interest income and other, net in 2001 consisted of $1.2 million of interest income on investments, a $1.4 million gain from the repurchase of our convertible notes, $0.4 million of dividends from 601 California Avenue LLC, a

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$0.8 million loss on the disposition of Pacific Gas and Electric commercial paper and $0.3 million of early payment discounts and other income. Interest income and other, net in 2000 consisted of $2.3 million of interest income on investments, $0.4 million of dividends from in 601 California Avenue LLC, $0.2 million of gains on foreign currency forward contracts and $0.2 million of early payment discounts and other income.

Provision for (benefit from) income taxes. In 2002, we recorded an income tax benefit of $6.6 million. This resulted from the enactment of the Job Creation and Worker Assistance Act of 2002 which increased the length of time, from two years to five years, over which losses incurred in 2001 and 2002 could be carried back against taxes paid in prior years. We paid federal income taxes of approximately $5.2 million for 1996, $0.9 million for 1997 and $0.5 million for 1998. Our federal tax returns, and any refunds resulting from them, are subject to audit for three years from the date filed. Our net deferred tax asset totaled zero at December 31, 2002, net of a $12.1 million valuation allowance. We have substantial net operating loss carry-forwards which can be used to limit the taxes paid in the future and to reduce our effective tax rate to less than the statutory income tax rates in effect.

In 2001, we recorded $5.0 million of income tax expense to provide additional valuation allowance against deferred tax assets. Our net deferred tax assets totaled zero at December 31, 2001, net of a $19.2 million valuation allowance established due to the uncertainty of realizing certain tax credits, loss carry-forwards and other deferred tax assets.

Our estimated effective tax rate for 2000 was 0%. We did not accrue a tax benefit during 2000 due to the inability to realize additional refunds from loss carry-backs.

Liquidity and Capital Resources

Our operating activities used cash of $6.0 million for the nine months ended September 27, 2003. The cash used was due primarily to the net loss incurred and the semi-annual interest payments on our convertible notes, which was partially offset by reductions in inventory and by depreciation and amortization. In the nine months ended September 28, 2002, our operating activities provided cash of $4.5 million due primarily to increases in customer advances and to non-cash charges for depreciation and amortization, which were partially offset by the net loss incurred.

Our investing activities used cash of $2.0 million and $1.1 million for the nine months ended September 27, 2003 and September 28, 2002, respectively, for the purchase of fixed assets.

Our financing activities provided cash of $644,000 for the nine months ended September 27, 2003 as a result of the sale of our common stock to our employees through our employee benefit plans. In the nine-month period ended September 28, 2002, our financing activities used cash of $7.2 million, primarily as a result of the exchange of most of our convertible notes due 2004 for new notes due 2009 and cash.

At September 27, 2003, we had $21.1 million of cash and cash equivalents. We expect to consume a significant portion of that cash over the next two quarters as we increase production of our 200 Lean disk sputtering system. After the initial production buildup, we expect to begin generating cash from 200 Lean shipments, and we believe our existing cash and cash equivalent balances will be sufficient to meet our cash requirements for the next twelve months.

We have incurred operating losses each year since 1998 and cannot predict with certainty when we will return to operating profitability. We believe a cyclical upturn in demand for the type of disk manufacturing equipment we produce is occurring, and we have received orders for twelve disk manufacturing systems in the last few months with the revenue from those orders expected mostly in the first half of next year. The receipt of these orders leads us to believe that our financial results in the first half of 2004 will be significantly improved.

Subsequent to September 27, 2003, we converted our outstanding Convertible Subordinated Notes due 2009 into 4,220,283 shares of our common stock. The effect of this conversion on our balance sheet was to eliminate $29.5 million of long-term debt and replace it with $29.0 million of equity. Offering costs

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of $500,000 related to the notes and carried on the balance sheet were written off as part of the transaction.

Quantitative and Qualitative Disclosures About Market Risk

Interest rate risk. The table below presents principal amounts and related weighted-average interest rates by year of maturity for our debt obligations as of September 27, 2003.

	2003	2004	2005	2006	2007	Beyond	Total	Fair Value
					(In thousands)			
Short-term debt								
Fixed rate		$1,025					$ 1,025	$ 923
Average rate	6.50%	6.50%						
Long-term debt								
Fixed rate						$29,542	$29,542	$29,542
Average rate	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%		

Subsequent to September 27, 2003, the long-term debt converted into equity.

Foreign exchange risk. From time to time, we enter into foreign currency forward exchange contracts to economically hedge certain of our anticipated foreign currency transaction, translation and re-measurement exposures. The objective of these contracts is to minimize the impact of foreign currency exchange rate movements on our operating results. At September 27, 2003, we had no foreign currency forward exchange contracts.

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BUSINESS

Overview

We are the world s leading provider of thin-film disk sputtering equipment for the thin-film disk industry and a developer of leading technology for extreme low light imaging devices and systems. We operate two businesses: Equipment and Imaging.

Our Equipment business designs, manufactures, markets and services complex capital equipment which deposits, or sputters, highly engineered thin-films onto disks used in hard disk drives. We believe we are the leading provider of disk sputtering systems. Our systems represent approximately half of the installed base of disk sputtering systems and produced approximately half of all thin-film disks made in 2003. Our customers include the world s leading thin-film disk manufacturers, such as Hitachi Global Storage Technologies, or HGST, Komag, Maxtor and Seagate Technology. We believe the rapid growth of digital data, the proliferation of new security applications and the growth of new consumer applications, such as personal video recorders, video game consoles and MP3 players, along with new technology advances in the industry, will provide us with a significant growth opportunity.

Our Imaging business develops and manufactures electro-optical sensors, cameras, and systems that permit highly sensitive detection of photons in the visible and near infrared portions of the spectrum, allowing vision in extreme low light situations. We currently develop night-vision technology and equipment for military and commercial applications. To date, our revenues have been derived primarily from research and development contracts funded by the U.S. government. Applications for our imaging technology include systems for positive identification of targets at long range and sensors and cameras for use in extreme low light situations. More recently, we began developing products for use in the commercial sector, specifically the security, life science and physical science markets.

Intevac was formed in 1990 and completed a leveraged buyout of a number of divisions of Varian Associates in February 1991. The technologies acquired from Varian formed the foundation for our Equipment and Imaging businesses.

Equipment Business

Our Equipment business designs, manufactures, markets and services complex capital equipment used in the sputtering, or deposition, of highly engineered thin-films of material onto thin-film disks which are used in hard disk drives. Hard disk drives are the primary storage medium for digital data and function by magnetically storing data on thin-film disks. These thin-film disks are created in a sophisticated manufacturing process involving a variation of many steps, including plating, annealing, polishing, texturing, sputtering and lubrication.

Storage Market Growth Drivers

Data storage requirements have rapidly increased from kilobytes for documents, to megabytes for audio and still images, to gigabytes for video. Hard disk drives are the primary devices used for storing and retrieving digital data. According to IDC, the total storage capacity of hard disk drives shipped grew from 5.2 billion gigabytes in 2001 to 8.8 billion gigabytes in 2002. Additionally, capacity is expected to grow at a 45.1% compounded annual growth rate from 2002 to 2007. We believe there are a number of emerging trends and applications that exploit these reduced storage costs and that require storage intensive solutions.

New consumer electronics applications, such as digital video and audio recorders, video game platforms, emerging HDTV applications and streaming video require significant digital data storage capability.

Personal computers have evolved from devices operating simple applications such as word processing, to powerful machines that are capable of playing, recording and creating multimedia content, such as images, audio and video. These capabilities have driven the demand for new

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personal computers and increasing requirements for data storage. IDC estimates personal computer growth of over 10.2% in 2004.

Enterprise data storage requirements are increasing, as regulations and other business factors require companies to archive more information, such as documents and email. Additionally, companies are transitioning from paper-based storage to digital data-based storage and digital backup.

Certain traditional analog storage applications are transitioning to digital hard disk-based storage. For example, the video surveillance industry, including home security, law enforcement, private security services, retail, transportation and government agencies, is transitioning from analog video tapes to digital hard disk storage.

As a result of these and other storage applications, IDC expects the total number of units of all hard disk drives to be shipped between 2002 and 2007 to grow at compounded annual rate of approximately 10.7% from 219 million units to 365 million units.

Hard Disk Drive Market Dynamics

Areal Density Increasing. Areal density, the density of information stored on thin-film disks, continues to increase. Areal density is a function of how closely spaced the information bits are on the thin-film disk. Higher areal density means more information can be stored on a thin-film disk of the same size. Thin-film disk manufacturers compete by increasing the areal density of a hard disk, which enables them to provide more data storage capacity at a lower cost per gigabyte. As areal densities have increased, hard disk drive manufacturers have been able to reduce costs by reducing the number of disks per drive. In 2003, desktop personal computers included an average of 1.1 thin-film disks per drive whereas in 1998 there was an average of 2.2 thin-film disks per drive.

Transition from Longitudinal to Perpendicular Recording. Historically, thin-film disk manufacturers have been able to increase the areal density of a thin-film disk by improving existing longitudinal recording processes, a storage method where magnetized data bits lie flat on the thin-film disk. However, the rate of increase in areal density has slowed, as the magnetized data bits are packed closer and closer together, which increases instability. In order to increase the rate of areal density expansion, we believe the thin-film disk industry will transition to perpendicular recording. Perpendicular recording, as the name implies, results in the data bits lying perpendicular to the plane of the thin-film disk and also enables bits to be recorded at a higher density than longitudinal recording.

New Equipment Required for Perpendicular Recording. The equipment that thin-film disk manufacturers purchased in the mid to late 1990s could generally accommodate up to 12 process steps, which has been sufficient to enable improvements in areal density using longitudinal recording. However, producing thin-film disks capable of perpendicular recording may require up to 18 to 24 process steps. As a result, in order to transition to perpendicular recording, thin-film disk manufacturers will most likely need to replace or retool their existing thin-film disk manufacturing equipment.

Consolidation of Equipment Suppliers. The supplier base of disk sputtering equipment has consolidated. Beginning in 1995, many thin-film disk manufacturers undertook aggressive expansion plans. The reduction in thin-film disks per drive combined with these capacity expansions resulted in substantial excess disk production capacity in the late 1990s through 2002. As a result, even as total storage capacity of all hard disk drives shipped increased dramatically from 1997 to 2002, thin-film disk manufacturers did not make significant investments in new disk sputtering equipment. In fact, of the four leading providers of disk sputtering equipment, only two have announced new equipment platforms capable of perpendicular recording.

Industry Consolidation. Two types of companies purchase disk sputtering equipment. Vertically integrated companies manufacture both thin-film disks and the drives that use the disks. Thin-film disk manufacturing companies manufacture only thin-film disks and sell them to hard disk drive manufacturers. These companies were also adversely affected by the overcapacity of 1997 through 2002, and as a result,

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the industry underwent significant consolidation. For instance, in 2001 Maxtor acquired Quantum s hard disk drive operations, and IBM sold its hard disk drive business to Hitachi in 2002. In 2001, Fujitsu ceased manufacturing hard disk drives for the personal storage market. This consolidation has reduced the number of thin-film hard disk manufacturers able to respond to any increasing demand for digital data storage.

Return to Industry Growth. According to IDC, hard disk drive demand will reach 365 million units by 2007. In 2003, hard disk drive manufacturers are expected to produce approximately 232 million units, according to IDC. Recently, HGST, Maxtor and Seagate, have announced significant thin-film disk manufacturing capacity expansions.

To meet increasing demands, thin-film disk manufacturers are beginning to invest in new disk sputtering equipment that can accommodate the additional process steps required for perpendicular recording. To evaluate the performance of competing disk sputtering equipment, thin-film disk manufacturers consider the following criteria:

Cost of Ownership. The factors that affect the cost of ownership of disk sputtering equipment include purchase price, yield, throughput, factory floor footprint, uptime and material utilization efficiency. A lower cost of ownership for disk sputtering equipment is a key factor in lowering the manufacturer s product cost.

Extendibility and Flexibility. We believe thin-film disk manufacturers need disk sputtering equipment that can address the needs of their evolving technology roadmaps. This equipment must be capable of incorporating new process steps and technical capabilities, including the processes needed for producing thin-film disks capable of perpendicular recording. Additionally, these manufacturers are improving longitudinal processes and further developing the processes necessary for perpendicular recording, and as a result, they demand a modular, flexible system that supports process reconfigurations and expansions with a minimum of effort.

Compatibility with Existing Equipment. We believe thin-film disk manufacturers prefer to standardize their processes around one or two disk sputtering equipment suppliers. Once a thin-film disk manufacturer has selected a particular supplier s equipment, that manufacturer generally relies upon that supplier s equipment for much of its production capacity and frequently will continue to purchase any additional equipment from the same supplier. There are significant economies of scale related to the use of a single platform in product design, product qualification, manufacturing and support.

Long-term Commitment of Supplier. We believe thin-film disk manufacturers need disk sputtering equipment providers that are committed to meeting current and future technology requirements and to supporting this equipment throughout its useful life. As a result, thin-film disk manufacturers increasingly demand a supplier with the stability and capability to be a long-term technology partner.

Our Competitive Strengths

We are the leading provider of sputtering equipment to thin-film disk manufacturers. We believe that our industry leadership is the result of the following key competitive strengths:

Broad Installed Base with Industry Leading Customers. Our MDP-250 disk sputtering system gained wide acceptance in the thin-film disk manufacturing industry and by the late 1990s was being used in the manufacture of approximately half of the thin-film disks used in hard disk drives worldwide. We believe that there are approximately 90 MDP-250s currently in use in production and research and development applications by customers such as HGST, Komag, Maxtor, Seagate and Showa Denko. We believe the majority of our active customers are now utilizing most of their capacity and that there is significant potential for these customers to both resume adding capacity and to upgrade the technical capability of their installed base to permit production of higher density disks capable of perpendicular recording. During 2003, we have received orders for ten of

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our 200 Lean disk sputtering systems, which are currently scheduled to be delivered from late 2003 through the first half of 2004. We believe this is the first production order from a major hard disk drive manufacturer for a new equipment platform capable of perpendicular recording.

Technology Leadership with Modular Next Generation Advanced Platform. In 2003, we introduced our latest-generation disk sputtering system, the 200 Lean, which provides significantly enhanced capabilities relative to our installed base of MDP-250 systems. The 200 Lean provides higher throughput from a smaller footprint, which enables more thin-film disks to be manufactured per square-foot of factory. The flexible design of the 200 Lean allows rapid reconfiguration to accommodate product changeovers and new thin-film disks technology. The modular design of the 200 Lean also allows thin-film disk manufacturers to add additional process steps, as advanced thin-film disk technologies, such as perpendicular recording, are introduced.

Long-Term Commitment to Hard Disk Drive Industry. We have been a hard disk drive equipment provider since 1991. We are one of only two companies that have announced next-generation disk sputtering equipment that can support perpendicular recording. We have continued to develop new technologies and have introduced the 200 Lean disk sputtering system to meet the needs for additional process steps needed to produce thin-film disks capable of perpendicular recording. In addition, our headquarters are strategically located in close proximity to our customers hard disk drive development centers, and we are expanding our support center in Singapore to provide greater service to our customers manufacturing facilities located in Southeast Asia.

Based on these competitive strengths, we believe that we are well positioned to maintain and enhance our market leading position in the disk sputtering equipment market.

Our Equipment Strategy

We believe we can leverage our leadership position in disk sputtering equipment to increase our sales to thin-film disk manufacturers and apply our technology to new markets. The key elements of our strategy are as follows:

Become Preferred Solutions Provider in the Thin-Film Disk Industry. Our goal is to become a preferred solutions provider to thin-film disk manufacturers. We believe that our 200 Lean provides our customers with an advanced modular platform that can address their future disk sputtering needs. By working in close partnership with our customers, we believe we are well positioned to provide new manufacturing solutions for other hard disk drive components. We believe we can integrate additional capabilities into the 200 Lean, enabling our customers to eliminate other stand-alone disk manufacturing equipment and reduce thin-film disk production time. We also believe we have an opportunity to develop and supply other equipment related to the manufacture of hard disk drives.

Deliver Highest Customer Value Proposition. Our goal is to maintain our leadership in advanced disk sputtering equipment by providing equipment with the lowest cost of ownership. The 200 Lean s modular design provides customers the ability to reconfigure their disk manufacturing systems for rapid technology shifts and evolving technology roadmaps.

Expand Consumables, Spare Parts and Service Offerings. We plan to increase the sale of disk sputtering equipment consumables, spare parts and service in order to increase our revenue opportunity per customer. In addition, growing these offerings will enable us to deepen and enhance our customer relationships. We believe the expected revenue from these offerings will help mitigate the impact of cyclical downturns in the disk sputtering equipment business. We believe that the close proximity of our service center in Singapore to a large number of hard disk drive manufacturers facilities gives us a competitive advantage.

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Leverage Existing Technology into New Markets. In addition to expansion within our existing customer base, we intend to target other markets where we can apply our expertise in complex manufacturing equipment.

Our Equipment Products

200 Lean Disk Sputtering System

The 200 Lean is our latest generation disk sputtering system. The 200 Lean provides significantly enhanced capabilities relative to the installed base of approximately 90 MDP-250 systems. The 200 Lean provides higher throughput from a smaller footprint in a flexible modular system, which enables more thin-film disks to be manufactured per square-foot of factory floor space and is designed to lower overall cost of ownership.

Intevac 200 Lean Disk Sputtering System

The key features of the 200 Lean include:

Modular Design. The 200 Lean s modular design allows our customers to accommodate any number of thin-film disk manufacturing process steps required by their evolving technology roadmaps. The 200 Lean consists of a front-end robotic module that loads and unloads thin-film disks from the system, combined with any number of four-station process modules. Typical configurations of the 200 Lean have from three to six process modules, which results in systems capable of 12 to 24 process steps. Additional process modules can be easily added to already installed systems. For example, a customer could buy a 12-station 200 Lean to manufacture of longitudinal media and at a later date upgrade the system to a 24-station system to manufacture perpendicular media.

Easy to Reconfigure. Thin-film disk manufacturers produce many different designs that have short product life cycles, leading to frequent reconfiguration of disk sputtering equipment. The mechanical design and software control system of the 200 Lean allows rapid reconfiguration of systems by our customers. The 200 Lean is also easily reconfigured to process thin-film disks with glass or aluminum substrates of varying diameters and thicknesses.

Higher Throughput with Smaller Footprint. The 200 Lean offers higher throughput (over 700 thin-film disks per hour) and more process stations in a more compact package than our industry-leading MDP-250 system. We believe that the 200 Lean has the highest disk throughput per square foot of factory space for a system capable of manufacturing perpendicular media.

High Availability. The 200 Lean is designed to operate seven days a week, 24 hours a day with 95% availability.

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Single Disk Processing. The 200 Lean processes each disk sequentially through a series of single-disk process chambers. This eliminates interactions between adjacent process stations, providing a higher level of process control and thin-film uniformity.

High-Vacuum Capability. The 200 Lean operates at ten times the vacuum level of the installed base of MDP-250s. Higher vacuum levels lead to lower contamination and higher coating efficiency, as required to manufacture of advanced media.

Suite of Process Station Options. The 200 Lean offers a wide range of process stations, providing capabilities such as metal deposition, heating, cooling and carbon overcoating.

MDP-250 Disk Sputtering System

We believe that the MDP-250 is used to manufacture approximately half the thin-film disks used worldwide to manufacture hard disk drives. The MDP-250 has twelve process stations that are separately vacuum pumped and vacuum isolated. The MDP-250 has a number of process station options, including multiple options for the sputtering of thin-films and carbon overcoats, heating stations, cooling stations and cleaning stations. Furthermore, the MDP-250s 12 process stations can be reconfigured to accommodate process changes.

Equipment Business Sales and Marketing

Our Equipment business sales are made primarily through our direct sales force, although in Japan, we sell our products through a distributor, Matsubo. The selling process for our equipment products is a multi-level and long-term process, involving individuals from marketing, engineering, operations, customer service and senior management. The process involves making samples for the prospective customer and responding to their needs for moderate levels of machine customization. Installing and integrating new equipment requires a substantial investment by a customer. Sales of our systems depend, in significant part, upon the decision of a prospective customer to replace obsolete equipment or to increase manufacturing capacity by upgrading or expanding existing manufacturing facilities or by constructing new manufacturing facilities, all of which typically involve a significant capital commitment. Therefore, customers often require a significant number of product presentations and demonstrations before making a purchasing decision. Accordingly, our systems typically have a lengthy sales cycle, during which we may expend substantial funds and management time and effort with no assurance that a sale will result.

The production of large complex systems requires us to make significant investments in inventory both to fulfill customer orders and to maintain adequate supplies of spare parts to service previously shipped systems. We also maintain an inventory of spare parts at our Singapore subsidiary to support our customers in Singapore and Malaysia. We typically require our customers to pay for systems in three installments, with a portion of the system price billed upon receipt of an order, a portion of the system price billed upon shipment, and the balance of the system price and any sales tax due upon completing installation and acceptance of the system at the customer s factory. All customer product payments are recorded as customer advances pending revenue recognition.

Equipment Business Customers

Our disk sputtering equipment customers include thin-film disk manufacturers, such as Fuji Electric, Komag, Showa Denko and Trace Storage Technology, and vertically integrated hard disk drive manufacturers, such as HGST, Maxtor and Seagate. The majority of our customers product development programs are located in the United States. Our customers manufacturing facilities are located in California, Singapore, Malaysia, Japan and Taiwan. In addition, HGST is developing a new media facility in China.

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Equipment Business Customer Support

We provide process and applications support, customer training, installation, start-up assistance and emergency service support to our equipment customers. Process and applications support is provided by our equipment process engineers, who also visit customers at their plants to assist in process development projects. We conduct training classes for our customers process engineers, machine operators and machine service personnel. Additional training is also given to our customers during the machine installation. We have a subsidiary in Singapore to support our customers in Southeast Asia.

We generally provide a warranty of at least one year on our equipment. During this warranty period any necessary non-consumable parts are supplied and installed without charge. Our employees provide field service support primarily in the United States, Singapore and Malaysia. In Japan, field service support is provided by our distributor, Matsubo, supplemented by our factory support. We and Matsubo stock consumables and spare parts to support the installed base of systems. These parts are generally available on a 24-hour per day basis.

Equipment Business Competition

The principal competitive factors affecting the markets for our equipment products include price, product performance and functionality, integration and manageability of products, customer support and service, reputation and reliability. We have historically experienced intense competition worldwide from competitors including Anelva Corporation, Ulvac and Unaxis Holdings, Ltd., each of which has sold substantial numbers of systems worldwide. Anelva, Ulvac and Unaxis all have substantially greater financial, technical, marketing, manufacturing and other resources than we do. Currently Anelva and Intevac are the only companies that are offering products that address the sputtering requirements of advanced perpendicular recording. However, there can be no assurance that any of our competitors will not develop enhancements to, or future generations of, competitive products that offer superior price or performance features or that new competitors will not enter our markets and develop such enhanced products.

Given the lengthy sales cycle and the significant investment required to integrate equipment into the manufacturing process, we believe that once a thin-film disk manufacturer has selected a particular supplier s equipment for a specific application, that manufacturer generally relies upon that supplier s equipment and frequently will continue to purchase any additional equipment for that application from the same supplier. Accordingly, competition for customers in the equipment industry is intense, and suppliers of equipment may offer substantial pricing concessions and incentives to attract new customers or retain existing customers.

Imaging Business

Our Imaging business develops and manufactures electro-optical sensors, cameras, and systems that permit highly sensitive detection of photons in the visible and near infrared portions of the spectrum, allowing vision in extreme low light situations.

Imaging Industry Overview

Imaging is the capture and display of light or heat, which is infrared radiation, emitted or reflected from an object. A segment of the imaging market has evolved into specialized technology for the capture of low light images. Low light imaging involves the capture and display of light at intensities of approximately one millionth, or less of, daytime light levels.

The U.S. military has determined that low light imaging technology that provides superiority in nighttime combat creates a significant strategic advantage. Accordingly, the U.S. military has funded the development of night vision technology, which has evolved through three generations to today s widely deployed Generation-III night vision tubes. Typically, Generation-III night vision tubes are placed in front of a user s eyes, like a pair of binoculars, and produce a direct-view, green glow image. However,

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the military is now funding the development of next generation extreme low light imaging technology that provides digital video output and is more cost-effective and portable.

The commercial sector has taken a different approach to extreme low light imaging than the military. The initial extreme low light cameras for the commercial sector were based on charged coupled device, or CCD, technology, which is able to produce a digital output. CCD technology relies on long exposure times for its sensitivity, and as a result the initial cameras were used for static applications, like astronomy. Other commercial markets, such as metrology, life sciences and industrial process monitoring, adopted CCD technology. However, these new markets compromised sensitivity for dynamic applications with motion or short measurement times.

As a result, two distinct forms of low light level imaging have evolved: the Generation-III night vision tube technology developed by the military, which provides direct-view analog imagery; and CCD technology, which can provide digital imagery, but is not well suited to dynamic applications.

Our Imaging Solution

We have developed imaging technology that combines the low light capability of Generation-III with silicon-based digital video technology that we believe will enable us to provide a family of portable, cost-effective low light sensors and cameras. Our solution integrates three key elements into a compact sensor:

a semiconductor photocathode, which converts incoming light into electrons,

acceleration of those elections into a digital imaging chip, and

conversion of those electrons into a digital signal.

Our Sensor Technology

When light photons strike the photocathode, an electron is emitted. High voltage between the photocathode and imaging chip accelerates electrons across a vacuum gap onto the imaging chip, which then produces an amplified digital signal.

Elements of our proprietary solutions include:

Advanced Photocathode Technology A photocathode is a semiconductor compound with the ability to convert light into electrons. We are developing a family of photocathodes that are engineered to optimize sensitivity at specific wavelengths ranging from the visible (0.40 microns) to the near infrared (1.65 microns). Our photocathodes have high quantum efficiencies, the efficiency with which incoming light photons are converted to electrons, and are extremely sensitive to incoming light. Our photocathodes can detect incoming light at levels as low as a single photon, which is the ultimate level of sensitivity.

Use of Low Power CMOS Imaging Chips Historically, CCD sensors were the primary technology used in digital imaging. Recently, Complementary Metal Oxide Semiconductor, or CMOS sensors, which are generally lower cost and lower power than comparable CCD sensors, have been developed for

consumer imaging applications. CMOS imaging chips are rapidly improving in power consumption, resolution and dynamic range. We have developed proprietary technologies and capabilities to incorporate CMOS sensors into our products to take advantage of these improvements. As a result, we believe we will be able to offer low cost, low power, extreme low light imaging sensors for portable applications in price sensitive markets.

Increased Silicon Sensor Sensitivity We have developed proprietary technology to enable CMOS and CCD sensors to capture the accelerated electrons emitted from the photocathode more efficiently. Increasing the electron capture efficiency directly increases extreme low light imaging performance.

Compact Ultra-High Vacuum Sensor Packaging Our compact ultra-high vacuum sensor package enables us to combine a megapixel imaging chip with our photocathodes in a package approximately one inch square and one quarter inch thick. Our proprietary design maintains close spacing between the photocathode and the silicon sensor to further enhance resolution. Our small package is particularly well suited for portable applications where size and weight are critical.

Low Light Imaging Market Opportunity

We are designing our imaging solutions to address next generation military requirements and the dynamic applications of the commercial markets.

Military Long Range Target Identification Current long-range nighttime surveillance systems are based on expensive thermal imaging camera systems, which image the thermal profile of a target. Thermal imaging systems become larger with increased range, which is problematic for aircraft and portable applications. Additionally, these systems only measure emitted heat and as a result produce poor resolution images. Moreover, long range infrared imaging systems deployed by the U.S. military are not significantly superior to infrared imaging systems available to potential adversaries. The rules of engagement for U.S. military forces require positive identification prior to attack. This puts U.S. forces at a disadvantage to adversaries who are willing to attack targets that have been detected, but not positively identified. Accordingly, there is a need for a cost effective, compact, long-range imaging solution for target identification.

Head Mounted Night Vision Systems Generation-III based night vision goggles, which have excellent extreme low light imaging performance, were widely deployed by the U.S. military for use by soldiers during the 1990 s. However, these goggles are relatively large, heavy and lack video output. Additionally, potential adversaries are now deploying Generation-II+ goggles manufactured outside the United States with performance levels approaching that of Generation-III. Accordingly, the U.S. Army has developed a roadmap to maintain extreme low light imaging dominance for the individual soldier. A key element of this roadmap includes a transition from bulky direct-view night vision goggles to a miniature head mounted imaging system, including an extreme low light camera and video display. This approach addresses size and weight issues and enables connectivity to a wireless network for distribution of the imagery and other information. These improvements need to be realized while minimizing the cost of each soldier s system. The U.S. Army plans to begin deployment of this type of system by 2006.

Security Cameras The world is becoming more security-conscious and increasingly relies on cameras for surveillance. The majority of the security market is served by closed circuit television cameras, which work well when sufficient light is available. However, extreme low light cameras are needed when sufficient light is not available, when it is not economical to provide lighting or when stealth is required. Markets for this capability include surveillance of international borders, airport perimeters, military bases, pipelines and nuclear power plants.

Physical Sciences Companies in the physical sciences use extreme low light imaging to investigate the chemistry and physics of a wide variety of substances such as foods, medicines, materials and biological compounds. They need high sensitivity and increased speed and resolution to increase the accuracy of their measurements and the productivity of their measurement tools. For example, defects on semiconductor wafers are getting increasingly smaller and require improved measurement accuracy. An

example in the pharmaceutical industry is the growing need for near infrared spectrometer imaging to determine the composition of medicines in real time.

Life Sciences The life sciences market focuses on increasing the understanding of biology at the cellular level to improve health and quality of life. To image single living cells this market needs extreme low light cameras that operate at speeds significantly higher than cameras that are available today. Extreme low light cameras are required, because light can change the cells that are being imaged. High speed cameras are required, because changes happen very rapidly at the cellular level. Medical labs, hospitals and health research institutes also utilize these cameras for applications ranging from routine lab tests to advanced research.

Our Imaging Strategy

Collaborate with Leading Development Organizations We collaborate with, and receive significant funding from, leading government research organizations on the development of our extreme low light technology. These organizations strongly influence development and procurement of advanced technologies by the U.S. military. For example, we have collaborated with the U.S. Army Night Vision Labs, the world leader in night vision technology, to facilitate the development and adoption of our night vision technology. We initially developed some of our sensors under a cost sharing agreement with the National Institute of Standards and Technology. More recently, we began working on a program with The Los Alamos National Laboratory to develop three-dimensional sensor technology.

Become Leading Provider of Extreme Low Light Imaging Technology for the Military We are actively marketing our extreme low light imaging technology to the military. Our technology has been incorporated into weapons development programs such as the Airborne Laser (ABL), the Cost Effective Targeting System (CETS), and the Long-Range Identification System (LRID) programs. Our objective is for our LIVAR technology to become the standard for long-range target identification and for our extreme low light sensors to become the standard for head-mounted displays.

Leverage Proprietary Sensor Technology to Address Emerging Commercial Markets We are using our extreme low light imaging expertise to develop products for commercial markets. For example, in 2003 we completed development of our NightVista camera to address the security market. We believe the modular design of our NightVista platform, coupled with our use standard silicon chips in our configurable sensors, will help to decrease our development time and cost to enter the physical and life sciences markets.

Lower Manufacturing Costs The market for our cameras and sensors is price elastic, and low cost manufacturing will be critical to the rapid proliferation of our products. Our use of commercially available sensors and development of wafer die level manufacturing, as opposed to single die level manufacturing, are elements of our strategy to reduce product cost. Additionally, we have developed proprietary ultra-high vacuum assembly equipment to automate the assembly of the photocathode and the imaging chip. In developing this system, we utilized our expertise in the design and manufacture of complex, high throughput production equipment. This system is designed to decrease unit costs by increasing throughput and improving process controls and yields.

Build Relationships with Strategic Sales Partners to Accelerate Access to End Markets We are focusing on the development and manufacture of extreme low light sensors and cameras. Our products are designed to be enabling technology for larger systems. As a result, we are developing relationships with leading systems manufacturers such as Lockheed Martin Corporation and Northrop Grumman Corporation, in the military market, to provide us with the scale and scope necessary to become a leading provider of imaging solutions in our target markets.

Our Imaging Products

LIVAR Camera and System Products Our Laser Illuminated Viewing and Ranging, or LIVAR, target identification system consists of a near infrared extreme low light camera integrated with an eye-safe

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laser illuminator. LIVAR uses a laser to illuminate a target and a camera to capture the reflected light and display an image. Currently the military uses systems such as forward-looking infrared systems and radar to detect targets. While these systems can detect targets at relatively long ranges, the resolution is relatively poor, and positive identification is often difficult or impossible. Our LIVAR system is designed to identify targets initially detected by forward-looking infrared or radar technology. Depending on the application, LIVAR can be used to identify targets at distances of up to 20 kilometers. We anticipate offering our LIVAR cameras and systems at prices that range from approximately $50,000 to $400,000. We do not expect significant revenues from deployment of LIVAR systems until 2006.

Current LIVAR programs and products include:

Cost Effective Targeting System We are working under subcontract to develop a LIVAR system for use on an unmanned surveillance vehicle being developed for the U.S. Army.

Airborne Laser LIVAR cameras are an enabling technology for the laser targeting in Lockheed Martin s Airborne Laser program, in which a jumbo jet will use high-powered lasers to destroy ballistic missiles in flight.

Classified Program The first weapons platform slated for deployment of LIVAR is nearing the end of its product development. We expect prototypes to be fielded in 2004 and volume production to follow approximately two years later.

SALSA Program In the Systems for Airborne Laser Sensing and Analysis, or SALSA, program, we are working with the Air Force Research Laboratory and Kirkland Air Force Base to develop wafer level manufacturing to enable lower cost LIVAR sensors.

Long Range Identification We are working with Northrop Grumman to integrate a LIVAR camera into an existing laser illuminator used by Special Operations Forces to designate targets for laser-guided bombs. The integration of LIVAR into this system is designed to allow the Special Operations Forces to complete their missions at much longer range from the target.

LIVAR 2200 Portable System The LIVAR 2200 is a prototype portable target identification system we developed for military use.

LIVAR 120 Camera The model 120 is a standalone LIVAR camera that we sell to developers of long-range imaging systems.

NightVista Cameras The NightVista camera is an extreme low light CMOS-based day/night video camera for security applications that currently offers up to 1.3 mega-pixel resolution. Its camera body is small enough to fit into a two-inch cube, and its power consumption is less than 1500 milliwatts. As a result the NightVista is well suited for portable battery-powered applications. The NightVista outputs digital video in several standard formats and is easily integrated with other digital technologies. The NightVista reprocesses and optimizes extreme low light images and is configurable to end user requirements. We offer the NightVista at a list price of $5,000, less than the price of a Generation-III based security camera. We expect volume production to commence in 2004.

Our Imaging business generally invoices its research and development customers either as costs are incurred, or as program milestones are achieved, depending upon the particular contract terms. As a government contractor, we invoice customers using estimated annual rates approved by the Defense Contracts Audit Agency (DCAA). A majority of our contracts are Cost Plus Fixed Fee (CPFF) contracts. On any CPFF contract, 15% of the fee is withheld pending completion of the program and DCAA s annual audit of our actual rates. The withheld portion of the fee is included in accounts receivable until paid.

Our Imaging Competition

The principal competitive factors affecting our products include price, extreme low light sensitivity, signal to noise ratio, power consumption, resolution, size, integratability, reliability, reputation and

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customer support and service. We face substantial competition for our imaging products and many of our competitors have greater resources than we do.

In the military market, ITT Industries and Northrop Grumman, who are large and well-established defense contractors, are the primary U.S. manufacturers of image intensifier tubes used in Generation-III night vision devices and their derivative products. Our extreme low light cameras are intended to displace Generation-III night vision based products and we expect that ITT and Northrop Grumman will continue to enhance the performance of their products and aggressively promote their sales. Furthermore, CMC Electronics, DRS, FLIR Systems and Raytheon manufacture cooled infrared sensors and cameras which are presently used in long-range target identification systems, with which our LIVAR target identification sensors and cameras compete.

In the security market, we face competition from companies such as ElectroPhysics, ITT and Texas Instruments. These competitors products are based on image intensifier tubes manufactured by ITT and Northrop Grumman and by foreign suppliers. Electron multiplying CCDs manufactured by Texas Instruments and E2V also are used in cameras that compete with our low light level security products. In the physical and life sciences market, companies such as Andor, E2V, Hamamatsu and Roper Scientific offer competitive products. In the security product area, competitive products to our NightVista camera based on electron multiplying CCDs and image intensifier tubes are offered by a number of companies.

Manufacturing

We conduct all of our Equipment business manufacturing at our facility in Santa Clara, California. Our equipment manufacturing operations include electromechanical assembly, mechanical and vacuum assembly, fabrication of sputter sources, and system assembly, alignment and testing. We make extensive use of the local supplier infrastructure serving the semiconductor equipment business. We purchase vacuum pumps, valves, instrumentation and fittings, power supplies, printed wiring board assemblies, computers and control circuitry, and custom mechanical parts made by forging, machining and welding. We also have our own small fabrication center that supports our engineering departments and makes some of the machined parts used in our products.

Our Imaging business manufacturing includes the manufacture of advanced photocathodes and sensors, lasers, cameras and integrated camera systems. We make extensive use of advanced manufacturing techniques and equipment, and our operations include vacuum, electromechanical and optical system assembly. As with our Equipment business, we make use of the supplier infrastructure serving the semiconductor, camera and optics manufacturing industries for our Imaging business. In manufacturing our sensors, we purchase wafers, components, processing supplies and chemicals. In manufacturing our camera systems, we purchase printed circuit boards, electromechanical components and assemblies, mechanical components and enclosures, optical components and computers.

Intellectual Property

We currently hold 28 patents issued in the United States and 32 patents issued in foreign countries, and have patent applications pending in the United States and foreign countries. Of the 28 U.S. patents, 15 relate to disk and flat panel equipment, and 13 relate to our Imaging business. Of the foreign patents, 13 relate to disk equipment and flat panel equipment, and 19 relate to our Imaging business. In addition, we have the right to utilize certain patents under licensing arrangements with Litton Industries, Stanford University and Alum Rock Technology. We hold substantial trade secrets in the imaging area related to photocathode fabrication and processing and to silicon chip packaging for vacuum compatibility and high electron sensitivity. We also have significant process integration intellectual property related to vacuum packaging of a photocathode and a silicon semiconductor chip.

We have executed a strategy to protect our intellectual property investment by using internal company funds for development of new concepts and inventions. This minimizes customer ownership of new

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intellectual property that we develop. This is particularly important due to the large amount of government-funded research and development in our Imaging business.

Customer Concentration

Historically, a significant portion of our revenue in any particular period has been attributable to sales to a limited number of customers. In 2002, Seagate, Toppoly and the U.S. Army Communications-Electronics Command each accounted for more than 10% of our revenues, and in aggregate accounted for 74% of revenues. In 2001, equipment sales through Matsubo, our Japanese distributor, accounted for 49% of revenues. In 2000, MMC Technology, Matsubo, Seagate and Westt each accounted for more than 10% of our revenues, and in aggregate accounted for 56% of revenues. Our largest customers change from period to period, and it is expected that sales of our products to relatively few customers will continue to account for a high percentage of our revenues in the foreseeable future.

Foreign sales accounted for 52% of revenues in 2002, 73% of revenues in 2001, and 27% of revenues in 2000. The majority of our foreign sales are to companies in the Far East, and we anticipate that sales to customers in the Far East will continue to be a significant portion of our equipment revenues.

Employees

At September 27, 2003, we had 164 employees, including 23 contract employees. Of these 80 employees were in research and development, 48 in manufacturing, and 36 in administration, customer support and marketing. Of the 164 employees, 92 were in the Equipment business, 48 were in the Imaging business, and 24 were in corporate.

Compliance with Environmental Regulations

We are subject to a variety of governmental regulations relating to the use, storage, discharge, handling, emission, generation, manufacture, treatment and disposal of toxic or otherwise hazardous substances, chemicals, materials or waste. We treat the cost of complying with government regulations and operating a safe workplace as a normal cost of business and allocate the cost of these activities to all functions, except where the cost of those activities can be isolated and charged to a specific function. The environmental standards and regulations promulgated by government agencies in Santa Clara, California are rigorous and set a high standard of compliance. We believe our costs of compliance with these regulations and standards are comparable to other companies operating similar facilities in Santa Clara, California.

Legal Proceedings

From time to time we are involved in litigation incidental to the conduct of our business. We are not party to any lawsuit or proceeding that, in our opinion, is likely to seriously harm our business.

Properties

We lease a 119,583 square foot facility in Santa Clara, California. The two-story facility includes offices, manufacturing, engineering labs and clean rooms. All of our operations, with the exception of our Singapore customer support office, are housed at the Santa Clara facility. The lease for the Santa Clara facility expires in March 2007. We have an option to extend the lease for an additional five-year period, with a monthly base rent to be negotiated between us and the lessor. If we and the lessor are unable to reach agreement with respect to that monthly base rent, an appraisal process set forth in the lease will determine the monthly base rent for the extension. We also lease a facility of approximately 2,400 square feet in Singapore to house the Singapore customer support organization. This lease expires in December 2003. Although we believe that our current facilities are suitable and adequate for our current operations, we plan to acquire additional sensor fabrication facilities and larger facilities in Singapore. We operate with one full manufacturing shift and one partial manufacturing shift. We believe that we have sufficient productive capacity to meet our current needs.

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MANAGEMENT

Executive Officers and Directors

Our executive officers and directors, and their ages and positions, as of December 11, 2003 are as follows:

Name	Age	Position
Norman H. Pond	65	Chairman of the Board
Kevin Fairbairn	50	President, Chief Executive Officer and Director
Verle Aebi	49	President of Photonics Technology Division
Charles B. Eddy III	53	Vice President, Finance and Administration, Chief Financial Officer, Treasurer and Secretary
David Dury	55	Director
David N. Lambeth	56	Director
Robert Lemos	62	Director
Arthur L. Money	63	Director
H. Joseph Smead	78	Director

Mr. Pond is a founder of Intevac and has served as Chairman of the Board since February 1991. Mr. Pond served as President and Chief Executive Officer from February 1991 until July 2000 and again from September 2001 through January 2002. Mr. Pond holds a BS in physics from the University of Missouri at Rolla and an MS in physics from the University of California at Los Angeles.

Mr. Fairbairn joined Intevac as President and Chief Executive Officer in January 2002 and was appointed a director in February 2002. Before joining Intevac, Mr. Fairbairn was employed by Applied Materials from July 1985 to January 2002, most recently as Vice-President and General Manager of the Conductor Etch Organization with responsibility for the Silicon and Metal Etch Divisions. From 1996 to 1999, Mr. Fairbairn was General Manager of Applied s Plasma Enhanced Chemical Vapor Deposition Business Unit and from 1993 to 1996, he was General Manager of Applied s Plasma Silane CVD Product Business Unit. Mr. Fairbairn holds an MA in Engineering Sciences from Cambridge University.

Mr. Aebi has served as President of the Photonics Division since July 2000. Mr. Aebi served as General Manager of the Photonics Division since May 1995 and was elected as a Vice President of the Company in September 1995. From 1988 through 1994, Mr. Aebi was the Engineering Manager of our night vision business, where he was responsible for new product development in the areas of advanced photocathodes and image intensifiers. Mr. Aebi holds a BS in physics and an MS in electrical engineering from Stanford University.

Mr. Eddy has served as Vice President, Finance and Administration, Chief Financial Officer, Treasurer and Secretary of Intevac since April 1991. Mr. Eddy holds a BS in engineering science from the University of Virginia and an MBA from Dartmouth College.

Mr. Dury has served as a director of Intevac since July 2002. Mr. Dury is a co-founder of Mentor Capital Group, a venture capital firm. From 1996 to 2000, Mr. Dury served as Senior Vice-President and Chief Financial Officer of Aspect Development, a software development firm. Mr. Dury holds a BA in psychology from Duke University and an MBA from Cornell University. He is also a director of Phoenix Technologies Ltd.

Dr. Lambeth has served as a director of Intevac since May 1996. Dr. Lambeth has been Professor of both Electrical and Computer Engineering and Material Science Engineering at Carnegie Mellon University since 1989. Dr. Lambeth was Associate Director of the Data Storage Systems at Carnegie Mellon University from 1989 to 1999. Since 1988, Dr. Lambeth has been the owner of Lambeth Systems, an engineering consulting and research firm. Dr. Lambeth holds a BS in electrical engineering from the University of Missouri and a Ph.D. in physics from the Massachusetts Institute of Technology.

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Mr. Lemos has served as a director of Intevac since August 2002. Mr. Lemos retired from Varian Associates, Inc. in 1999 after 23 years, including serving as Vice-President and Chief Financial Officer from 1988 to 1999. Mr. Lemos has a BS in Business from the University of San Francisco, a JD in law from Hastings College and an LLM in law from New York University.

Mr. Money has served as a director of Intevac since October 2003. Mr. Money served as the Assistant Secretary of Defense for Command, Control, Communication and Intelligence (C3I) from October 1999 to April 2001. Prior to his Senate confirmation in that role, he was the Senior Civilian Official, Office of the ASD (C3I) from February 1998. Mr. Money also served as the Chief Information Officer for the Department of Defense from 1998 to 2001. From 1996 to 1998, he served as Assistant Secretary of the Air Force for Research, Development and Acquisition. Prior to his government service, Mr. Money held senior management positions with ESL Inc., a subsidiary of TRW, and the TRW Avionics and Surveillance Group. He is also a director of CACI International, Essex Corporation, Intelli-Check, Rainbow Technologies, Inc., Silicon Graphics, Inc. and Terremark Worldwide, Inc. Mr. Money holds an MS in Mechanical Engineering from the University of Santa Clara and a BS in Mechanical Engineering from San Jose State University.

Dr. Smead has served as a director of Intevac since February 1991. Dr. Smead joined Kaiser Aerospace and Electronics Corporation in 1974 and served as Kaiser s President from 1974 until October 1997. Dr. Smead served as President and Chairman of the Board of Directors of K Systems, Inc., Kaiser s parent company, from 1977 until October 1997. Dr. Smead served as Chairman of the Board of Directors of Kaiser until December 1999. Dr. Smead resigned as a director of Kaiser and its subsidiaries in December 2000. Dr. Smead holds a BS in electrical engineering from the University of Colorado, an MS in electrical engineering from the University of Washington and a Ph.D. in electrical engineering from Purdue University.

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PRINCIPAL AND SELLING SHAREHOLDERS

The following table sets forth certain information known to us regarding the ownership of our common stock as of December 11, 2003, and as adjusted to reflect the sale of 4,000,000 shares of common stock in the offering by Intevac and the selling shareholder, by each of our directors and by our Chief Executive Officer and each of our three other executive officers; our directors and executive officers as a group; and each person or group known by us to own beneficially more than 5% of our outstanding common stock based upon a review of our internal records or filings made pursuant to Sections 13(d), 13(f) and 13(g) with the Securities and Exchange Commission. Except as otherwise noted, the address of each person listed on the following table is c/o Intevac, Inc., 3560 Bassett Street, Santa Clara, CA 95054.

	Shares Beneficially Owned Before Offering[1]			Shares Beneficially Owned After Offering[1][2]	
Name and Address of Beneficial Owner	Number	Percent[3]	Number of Shares Offered[2]	Number	Percent
Redemco, LLC 395 Mill Creek Circle Vail, CO 81657	3,255,969	19.2%		3,255,969	16.7%
Foster City LLC[4] 395 Mill Creek Circle Vail, CO 81657	2,344,031	13.8%	1,500,000	844,031	4.3%
Zazove Associates, LLC 944 Southwood Incline Village, NV 89451	1,457,384	8.6%		1,457,384	7.5%
Norman H. Pond[5]	1,060,575	6.2%		1,060,575	5.4%
Kern Capital Management, LLC 114 West 47th Street, Suite 1926 New York, NY 10036[6]	977,900	5.8%		977,900	5.0%
State of Wisconsin Investment Board P.O. Box 7842 Madison, WI 53707	947,100	5.6%		947,100	4.9%
Royce & Associates LLC 1414 Avenue of the Americas New York, NY 10019	865,300	5.1%		865,300	4.4%
Kevin Fairbairn[7]	113,749	*		113,749	*
Charles B. Eddy[8]	138,353	*		138,353	*
Verle Aebi[9]	78,997	*		78,997	*
David S. Dury[10]	35,000	*		35,000	*
David N. Lambeth[11]	55,000	*		55,000	*
Robert Lemos[12]	38,000	*		38,000	*
Arthur L. Money[13]	30,000	*		30,000	*
H. Joseph Smead[14]	5,647,683	33.3%	1,500,000	4,147,683	21.3%
All directors and executive officers as a group (9 persons)[15]	7,197,357	41.4%	1,500,000	5,697,357	28.6%

* Less than 1%

(1) Except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock. The number of shares beneficially owned includes common stock of which such individual has the right to acquire beneficial ownership either currently or within 60 days after December 11, 2003, such as upon the exercise of an option.

(2) Assumes no exercise of the underwriters over-allotment option.

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(3) Percentage of beneficial ownership is based upon 16,949,798 shares of common stock that were outstanding December 11, 2003. For each individual, this percentage includes common stock of which such individual has the right to acquire beneficial ownership either currently or within 60 days of December 11, 2003, including, but not limited to, upon the exercise of an option or conversion of convertible debt; however, such common stock is not considered outstanding for the purpose of computing the percentage owned by any other individual as required by Rule 13d-3(d)(1)(i) under the Securities Exchange Act of 1934.

(4) Foster City LLC has granted the underwriters an option to purchase up to an additional 600,000 shares of common stock to cover over-allotment options. If that option is exercised in full, Foster City LLC will hold 244,031 shares, or 1.3% of the outstanding shares, after the offering.

(5) Includes 768,100 shares held by the Norman Hugh Pond and Natalie Pond Trust DTD 12/23/80; 182,357 shares held by the Pond 1996 Charitable Remainder Unitrust, both of whose trustees are Norman Hugh Pond and Natalie Pond; options exercisable for 63,333 shares of common stock outstanding under the 1995 Stock option/ Stock Issuance Plan (the 1995 Option Plan).

(6) Includes 977,900 shares over which Robert E. Kern, Jr. and David G. Kern share voting power and 160,000 shares over which Redpoint Partners LP share voting power.

(7) Includes options exercisable for 99,999 shares of common stock under the 1995 Option Plan.

(8) Includes 83,141 shares held by the Eddy Family Trust DTD 02/09/00, whose trustees are Charles Brown Eddy III and Melissa White Eddy and options exercisable for 48,433 shares of common stock under the 1995 Option Plan.

(9) Includes options exercisable for 42,666 shares of common stock under the 1995 Option Plan.

(10) Includes options exercisable for 35,000 shares of common stock under the 1995 Option Plan.

(11) Includes options exercisable for 55,000 shares of common stock under the 1995 Option Plan.

(12) Includes options exercisable for 35,000 shares of common stock under the 1995 Option Plan.

(13) Includes options exercisable for 30,000 shares of common stock under the 1995 Option Plan.

(14) Includes options exercisable for 32,500 shares of common stock under the 1995 Option Plan, 3,255,969 shares held by Redemco, LLC, and 2,344,031 shares held by Foster City LLC. Dr. Smead is the managing member of Redemco and is a manager of Foster City. If the underwriters over-allotment option is exercised in full, Dr. Smead will hold 3,547,683 shares, or 18.2% of the outstanding shares, after the offering. Dr. Smead disclaims beneficial ownership in the shares of Intevac held by Redemco and Foster City, except to the extent of his pecuniary interest therein arising from his interest in each.

(15) Includes options exercisable for 441,931 shares of common stock under the 1995 Option Plan. If the underwriters over-allotment option is exercised in full, all directors and executive officers as a group will hold 5,197,357 shares, or 26.1% of the outstanding shares, after the offering.

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UNDERWRITING

General

We and the selling shareholder intend to enter into an underwriting agreement with the underwriters named below on the terms described below. The underwriters obligations are several, which means that each underwriter is required to purchase a specific number of shares, but is not responsible for the commitment of any other underwriter to purchase shares. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us and the selling shareholder the number of shares of common stock set forth opposite its name below:

Underwriters	Number of Shares
Needham & Company, Inc.	
Thomas Weisel Partners LLC	
	—
Total	
	▬

The underwriters have advised us and the selling shareholder that the underwriters propose to offer the shares of common stock to the public at the public offering price per share set forth on the cover page of this prospectus. The underwriters may offer shares to securities dealers, who may include the underwriters, at that public offering price less a concession of up to $ per share. The underwriters may allow, and these dealers may re-allow, a concession to other securities dealers of up to $ per share. After the offering to the public, the offering price and other selling terms may be changed by the underwriters.

The underwriting agreement provides that the obligations of the underwriters to purchase the shares of common stock offered hereby are subject to certain conditions precedent and that the underwriters will purchase all shares of the common stock offered hereby, other than those covered by the over-allotment option described above, if any of these shares are purchased.

The underwriters are offering the shares of our common stock, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Over-Allotment Option

The selling shareholder has granted to the underwriters an option to purchase up to 600,000 additional shares of common stock at the public offering price per share, less the underwriting discount, set forth on the cover page of this prospectus. This option is exercisable during the 30-day period after the date of this prospectus. The underwriters may exercise this option only to cover over-allotments, which are discussed below, made in connection with this offering. If the underwriters exercise this option, each of the underwriters will be obligated to purchase approximately the same percentage of the additional shares as the number of shares of common stock to be purchased by that underwriter, as shown in the table above, bears to the total number of shares shown. If this option is exercised, in part, shares will be purchased from us and the selling shareholder on a pro rata basis.

Commissions and Discounts

The underwriters have advised us and the selling shareholder that the underwriters propose to offer the shares of common stock to the public at the public offering price per share set forth on the cover page of this prospectus. The underwriters may offer shares to securities dealers, who may include the underwriters, at that public offering price less a concession of up to $ per share. The underwriters may allow, and these dealers may re-allow, a concession to other securities dealers of up to $ per share. After the offering to the public, the underwriters may change the offering price and other selling terms.

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The underwriting discount is equal to the public offering price per share of common stock less the amount paid by the underwriters to us and the selling stockholder per share of common stock. The underwriting discount is currently expected to be % of the public offering price. The following table shows the per share and total underwriting discount to be paid to the underwriters by us and the selling shareholder. These amounts are shown assuming both no exercise and full exercise of the underwriters option to purchase additional shares.

	Per Share		Total	
	Without Over-Allotment	With Over-Allotment	Without Over-Allotment	With Over-Allotment
Paid by Intevac, Inc.	$	$	$	$
Paid by the Selling Shareholder				

Indemnification of Underwriters

The underwriting agreement provides that we and the selling shareholder will indemnify the underwriters against certain liabilities that may be incurred in connection with this offering, including liabilities under the Securities Act, or to contribute to payments that the underwriters may be required to make in respect thereof.

No Sales of Similar Securities

We have agreed not to offer, sell, contract to sell, grant options to purchase, or otherwise dispose of any shares of our common stock or securities exchangeable for or convertible into our common stock for a period of 90 days after the date of this prospectus without the prior written consent of Needham & Company, Inc. This agreement does not apply to the issuance of additional options or shares under any existing employee benefit plans. Our directors, officers and the selling stockholder have agreed, subject to certain exceptions, not to, directly or indirectly, sell, hedge, or otherwise dispose of any shares of common stock, options to acquire shares of common stock or securities exchangeable for or convertible into shares of common stock, for a period of 180 days after the date of this prospectus without the prior written consent of Needham & Company, Inc. Needham & Company, Inc. may, in its sole discretion and at any time without notice, release all or any portion of the securities subject to these lock-up agreements.

Nasdaq National Market Listing

Our common stock is quoted on The Nasdaq National Market under the symbol IVAC.

Discretionary Accounts

The underwriters do not expect sales of shares of common stock offered by this prospectus to any accounts over which they exercise discretionary authority to exceed five percent of the shares offered.

Short Sales, Stabilizing Transactions and Penalty Bids

In connection with this offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock, in accordance with Regulation M under the Securities Exchange Act of 1934. Specifically, the underwriters may over-allot shares of our common stock in connection with this offering by selling more shares than are set forth on the cover page of this prospectus. This creates a short position in our common stock for their own account. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase under the over-allotment option. To close out a short position, the underwriters may bid for, and purchase, common stock in the open market. The underwriters may also elect to reduce any short position by exercising all or part of the over-allotment option. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment

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option. A naked short position is created if the underwriters sell more shares than could be covered by the over-allotment option. The underwriters must close out any naked short positions by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase shares in the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter or dealer repays selling concessions allowed to it for distributing our common stock in this offering because the underwriters repurchase that stock in stabilizing or short covering transactions.

Finally, the underwriters and selling group members, if any, or their affiliates may engage in passive market making transactions in our common stock on The Nasdaq National Market immediately prior to the commencement of sales in this offering, in accordance with Rule 103 of Regulation M under the Securities Exchange Act of 1934. Rule 103 generally provides that:

a passive market maker may not effect transactions or display bids for our common stock in excess of the highest independent bid price by persons who are not passive market makers;

net purchases by a passive market maker on each day are generally limited to 30% of the passive market maker s average daily trading volume in our common stock during a specified two-month prior period or 200 shares, whichever is greater, and must be discontinued when that limit is reached; and

passive market making bids must be identified as such.

Any of these activities may stabilize or maintain the market price of our common stock at a price that is higher than the price that might otherwise exist in the absence of these activities or may prevent or retard a decline in the market price of our stock. The underwriters are not required to engage in these activities, and may discontinue any of these activities at any time without notice. These transactions may be effected on The Nasdaq National Market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters make any representation that the underwriters will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us. They have received customary fees and commissions for these transactions.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us and the selling shareholder by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Certain legal matters in connection with this offering will be passed upon for the underwriters by Gray Cary Ware & Freidenrich LLP.

EXPERTS

The consolidated financial statements as of December 31, 2001 and 2002 and for each of the years in the three-year period ended December 31, 2002 included in this prospectus have been so included in reliance on the report of Grant Thornton LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

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WHERE YOU CAN FIND MORE INFORMATION

GOVERNMENT FILINGS. We file annual, quarterly and special reports and other information with the Securities and Exchange Commission. You may read and copy any document that we file at the SEC s public reference rooms at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to you free of charge at the SEC s web site at http://www.sec.gov.

STOCK MARKET. Our common stock is traded on the Nasdaq National Market. Material that we file with Nasdaq can be inspected at the offices of the National Association of Securities Dealers, Inc., Reports Section, 1735 K Street, N.W., Washington, D.C. 20006.

INCORPORATION BY REFERENCE

The Securities and Exchange Commission allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made by us with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act until we have completed our offering:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2002;

Our Quarterly Report on Form 10-Q for the quarter ended March 29, 2003;

Our Quarterly Report on Form 10-Q for the quarter ended June 28, 2003;

Our Quarterly Report on Form 10-Q for the quarter ended September 27, 2003; and

The description of our common stock contained in the our Registration Statement on Form 8-A dated October 5, 1995, filed with the Commission pursuant to Section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

Any statement contained in a document that is incorporated by reference is modified or superseded for all purposes to the extent that a statement contained in this prospectus (or in any other document that is subsequently filed with the Commission and incorporated by reference) modifies or is contrary to that previous statement. Any statement so modified or superseded is not deemed a part of this prospectus, except as so modified or superseded.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Investor Relations, Intevac, Inc., 3560 Bassett Street, Santa Clara, California 95054, (408) 986-9888.

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INTEVAC, INC.

INDEX TO FINANCIAL STATEMENTS

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INTEVAC, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands)

	September 27, 2003	December 31, 2002
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 21,148	$28,457
Accounts receivable, net of allowances of $59 and $269 at September 27, 2003 and December 21, 2002, respectively	6,529	4,991
Income taxes recoverable		214
Inventories	9,864	15,871
Prepaid expenses and other current assets	607	961
Total current assets	38,148	50,494
Property, plant and equipment, net	6,281	6,793
Investment in 601 California Avenue LLC	2,431	2,431
Debt issuance costs and other long-term assets	506	580
Total assets	$ 47,366	$60,298
LIABILITIES AND SHAREHOLDERS EQUITY (DEFICIT)		
Current liabilities:		
Convertible notes	$ 1,025	$
Accounts payable	3,006	1,739
Accrued payroll and related liabilities	1,488	1,379
Other accrued liabilities	3,244	3,723
Customer advances	9,552	12,344
Total current liabilities	18,315	19,185
Convertible notes	29,542	30,568
Shareholders equity (deficit):		
Common stock, no par value	20,034	19,389
Accumulated other comprehensive income	210	189
Accumulated deficit	(20,735)	(9,033)
Total shareholders equity (deficit)	(491)	10,545
Total liabilities and shareholders equity (deficit)	$ 47,366	$60,298

See accompanying notes.

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INTEVAC, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	Sept. 27, 2003	Sept. 28, 2002	Sept. 27, 2003	Sept. 28, 2002
Net revenues:				
Systems and components	$ 5,037	$ 4,948	$ 18,278	$ 16,790
Technology development	2,579	1,789	5,940	5,002
Total net revenues	7,616	6,737	24,218	21,792
Cost of net revenues:				
Systems and components	2,713	4,002	13,745	12,630
Technology development	1,813	1,419	4,372	4,176
Inventory provisions	210	(26)	942	678
Total cost of net revenues	4,736	5,395	19,059	17,484
Gross profit	2,880	1,342	5,159	4,308
Operating expenses:				
Research and development	3,173	2,285	8,916	8,391
Selling, general and administrative	2,216	1,976	6,287	5,522
Total operating expenses	5,389	4,261	15,203	13,913
Operating loss	(2,509)	(2,919)	(10,044)	(9,605)
Interest expense	(522)	(1,117)	(1,547)	(2,445)
Interest income and other, net	132	194	(111)	549
Loss before income taxes	(2,899)	(3,842)	(11,702)	(11,501)
Benefit from income taxes				(6,369)
Net income (loss)	$ (2,899)	$ (3,842)	$ (11,702)	$ (5,132)
Other comprehensive income (loss):				
Foreign currency translation adjustment	17	(4)	21	16
Total comprehensive income (loss)	$ (2,882)	$ (3,846)	$ (11,681)	$ (5,116)
Basic earnings per share:				
Net income (loss)	$ (0.24)	$ (0.32)	$ (0.96)	$ (0.42)
Shares used in per share amounts	12,266	12,093	12,206	12,065
Diluted earnings per share:				
Net income (loss)	$ (0.24)	$ (0.32)	$ (0.96)	$ (0.42)
Shares used in per share amounts	12,266	12,093	12,206	12,065

See accompanying notes.

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INTEVAC, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended	
	Sept. 27, 2003	**Sept. 28, 2002**
Operating activities		
Net loss	$(11,702)	$ (5,132)
Adjustments to reconcile net loss to net cash and cash equivalents provided by (used in) operating activities:		
Depreciation and amortization	1,508	2,849
Inventory provisions	942	678
Compensation expense in the form of common stock		4
Foreign currency (gain)/loss		1
Loss on disposal of equipment	644	
Changes in operating assets and liabilities	2,607	6,055
Total adjustments	5,701	9,587
Net cash and cash equivalents provided by (used in) operating activities	(6,001)	4,455
Investing activities		
Purchase of leasehold improvements and equipment	(1,951)	(1,123)
Net cash and cash equivalents used in investing activities	(1,951)	(1,123)
Financing activities		
Proceeds from issuance of common stock	644	273
Exchange of Intevac convertible notes due 2004.		(7,483)
Net cash and cash equivalents provided by (used in) financing activities	644	(7,210)
Effect of exchange rate changes on cash	(1)	16
Net decrease in cash and cash equivalents	(7,309)	(3,862)
Cash and cash equivalents at beginning of period	28,457	18,157
Cash and cash equivalents at end of period	$ 21,148	$14,295
Supplemental Schedule of Cash Flow Information		
Cash paid (received) for:		
Interest	$ 1,987	$ 2,381
Income tax refund	(214)	(6,369)

See accompanying notes.

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INTEVAC, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. Business Activities and Basis of Presentation

Intevac, Inc. s businesses are the design, manufacture and sale of complex capital equipment used to manufacture products such as thin-film disks and flat panel displays (the Equipment Products Division), the development of highly sensitive electro-optical devices and systems for the US military and its allies (the Photonics Technology Division) and the design, manufacture and sale of commercial products based on technology developed by the Photonics Technology Division (the Commercial Imaging Division).

Systems sold by the Equipment Products Division are used to deposit highly engineered thin-films of material on a substrate. These systems generally utilize proprietary manufacturing techniques and processes, operate under high levels of vacuum, are designed for high-volume continuous operation and use precision robotics, computerized controls and complex software programs to fully automate and control the production process. Products manufactured with these systems include disks for computer hard disk drives and flat panel displays for use in consumer electronics products.

The Photonics Technology Division (PTD) is developing electro-optical sensors and cameras that permit highly sensitive detection of photons in the visible and near infrared portions of the spectrum. This development work is aimed at creating new products for both military and industrial applications. Products include Laser Illuminated Viewing and Ranging (LIVAR®) systems for positive target identification at long range and low-cost extreme low light level cameras for use in military applications.

The Commercial Imaging Division (CID) was formed in July 2002 with the charter of developing products based on PTD technology for sale to commercial markets. CID is currently developing products for the surveillance, scientific and medical markets.

The financial information at September 27, 2003 and for the three- and nine-month periods ended September 27, 2003 and September 28, 2002 is unaudited, but includes all adjustments (consisting only of normal recurring accruals) that Intevac considers necessary for a fair presentation of the financial information set forth herein, in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) for interim financial information, the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, it does not include all of the information and footnotes required by U.S. GAAP for annual financial statements. For further information, refer to the Consolidated Financial Statements and footnotes thereto included in Intevac s Annual Report on Form 10-K for the fiscal year ended December 31, 2002.

The preparation of financial statements in conformity with U.S. GAAP 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 financial statements and reported amounts of revenue and expenses during the reporting period. Actual results inevitably will differ from those estimates, and such differences may be material to the financial statements.

On January 1, 2003, in order to better conform its revenue recognition policies to those commonly used in the equipment industry, Intevac changed its revenue recognition policy for system orders received after December 31, 2002.

Intevac evaluates the collectibility of trade receivables on an ongoing basis and provides reserves against potential losses when collectibility is not reasonably assured.

The results for the three- and nine-month periods ended September 27, 2003 are not considered indicative of the results to be expected for any future period or for the entire year.

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INTEVAC, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Inventories

The components of inventory consist of the following:

	September 27, 2003	December 31, 2002
	(Unaudited) (In thousands)	
Raw materials	$3,135	$ 3,329
Work-in-progress	3,507	2,628
Finished goods	3,222	9,914
	$9,864	$15,871

Finished goods inventory consists solely of completed units, generally at customer sites, undergoing installation or acceptance testing.

Inventory reserves included in the above numbers were $10.9 million and $9.6 million at September 27, 2003 and December 31, 2002, respectively. Each quarter, we analyze our inventory (raw materials, WIP and finished goods) against the forecast demand for the next 12 months. Parts with no forecast requirements are considered excess and inventory provisions are established to write those parts down to zero net book value. During this process, some inventory is identified as having no future use or value to us and is disposed of against the reserves. During the nine months ended September 27, 2003, $0.9 million was added to inventory reserves based on the quarterly analysis and $74,000 of inventory was disposed of and charged to the reserve.

3. Employee Stock Plans

At September 27, 2003, Intevac had two stock-based employee compensation plans. We account for those plans under the recognition and measurement principles of APB Opinion No. 25, Accounting for Stock Issued to Employees , and related Interpretations. No stock-based employee compensation cost is reflected in net income, as all options granted under those plans had an exercise price equal to the market value of the underlying common stock on the date of grant. Intevac does not have any plans to adopt the fair value requirements of SFAS 123 for recognition purposes.

The following table illustrates the effects on net income (loss) and earnings (loss) per share if Intevac had applied the fair value-recognition provisions of FASB Statement No. 123, Accounting for Stock-Based Compensation , to stock-based employee compensation.

	Three Months Ended		Nine Months Ended	
	Sept 27, 2003	Sept 28, 2002	Sept 27, 2003	Sept 28, 2002
	(In thousands)			
Net loss, as reported	$(2,899)	$(3,842)	$(11,702)	$(5,132)
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(139)	(206)	(406)	(157)
Pro forma net loss	$(3,038)	$(4,048)	$(12,108)	$(5,289)

Basic and diluted earnings per share

As reported	$ (0.24)	$ (0.32)	$ (0.96)	$ (0.42)
Pro forma	$ (0.25)	$ (0.33)	$ (0.99)	$ (0.44)

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INTEVAC, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Warranty

Intevac s typical warranty is 12 months from customer acceptance. In some cases extended warranty periods beyond 12 months are marketed to our customers. The warranty period on used systems is generally shorter than 12 months. The warranty period on consumable parts is limited to their reasonable usable life. A provision for the estimated warranty cost is recorded when revenue is recognized.

The following table displays the activity in the warranty provision account, which is included in other accrued liabilities on the Company s balance sheet, for the three and nine-month periods ending September 27, 2003 and September 28, 2002:

	Three Months Ended		Nine Months Ended	
	Sept 27, 2003	Sept 28, 2002	Sept 27, 2003	Sept 28, 2002
	(In thousands)			
Beginning balance	$ 664	$ 573	$ 845	$ 906
Expenditures incurred under warranties	(239)	(199)	(846)	(584)
Accruals for product warranties issued during the reporting period	50	67	241	272
Adjustments to previously existing warranty accruals		501	235	348
Ending balance	$ 475	$ 942	$ 475	$ 942

5. Net Income (Loss) Per Share

The following table sets forth the computation of basic and diluted earnings per share:

	Three Months Ended		Nine Months Ended	
	Sept. 27, 2003	Sept. 28, 2002	Sept. 27, 2003	Sept. 28, 2002
	(In thousands)			
Numerator:				
Numerator for basic earnings per share loss available to common shareholders	$ (2,899)	$ (3,842)	$(11,702)	$ (5,132)
Effect of dilutive securities:				
6 1/2% convertible notes[1]				
Numerator for diluted earnings per share loss available to common shareholders after assumed conversions	$ (2,899)	$ (3,842)	$(11,702)	$ (5,132)
Denominator:				
Denominator for basic earnings per share weighted-average shares	12,266	12,093	12,206	12,065
Effect of dilutive securities:				
Employee stock options[2]				
6 1/2% convertible notes[1]				

Dilutive potential common shares				
Denominator for diluted earnings per share adjusted weighted-average shares and assumed conversions	12,266	12,093	12,206	12,065

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INTEVAC, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(1) Diluted EPS for the three- and nine-month periods ended September 27, 2003 and September 28, 2002 excludes as converted treatment of the convertible notes as their inclusion would be anti-dilutive. The number of as converted shares excluded for the three- and nine-month periods ended September 27, 2003 was 4,269,983, and the number of as converted shares excluded for the three- and nine-month periods ended September 28, 2002 was 4,282,247 and 2,640,992, respectively.

(2) Potentially dilutive securities, consisting of shares issuable upon exercise of stock options, are excluded from the calculation of diluted EPS, as their effect would be anti-dilutive. The weighted average number of employee stock options excluded for the three-month periods ended September 27, 2003 and September 28, 2002 was 1,785,904 and 1,903,170, respectively, and the number of employee stock options excluded for the nine-month periods ended September 27, 2003 and September 28, 2002 was 1,790,007 and 1,876,543, respectively.

6. Segment Reporting

Segment Description

Intevac, Inc. has three reportable operating segments: Equipment Products, Photonics Technology and Commercial Imaging. Our Equipment Products Division sells complex capital equipment used in the manufacturing of thin-film disks and flat panel displays. Our Photonics Technology Division (PTD) is developing sensors and cameras that permit highly sensitive detection of photons in the visible and near infrared portions of the spectrum. Intevac s technology development revenues are generated within the PTD segment. Our Commercial Imaging Division is developing commercial products based on technology developed by PTD.

Included in corporate activities are general corporate expenses less an allocation of corporate expenses to operating units equal to 3% and 1% of net revenues in 2003 and 2002, respectively. The cost of excess facility space not used by the operating divisions is also included in corporate activities and was $275,000 and $907,000, respectively, for the three and nine months ended September 27, 2003.

Business Segment Net Revenues

	Three Months Ended		Nine Months Ended	
	Sept. 27, 2003	Sept. 28, 2002	Sept. 27, 2003	Sept. 28, 2002
	(In thousands)			
Equipment Products	$4,963	$4,759	$17,776	$16,276
Photonics Technology	2,653	1,970	6,436	5,479
Commercial Imaging		8	6	37
Total	$7,616	$6,737	$24,218	$21,792

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INTEVAC, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Business Segment Profit & Loss and Reconciliation to Consolidated Pre-tax Profit (Loss)

	Three Months Ended		Nine Months Ended	
	Sept. 27, 2003	Sept. 28, 2002	Sept. 27, 2003	Sept. 28, 2002
	(In thousands)			
Equipment Products	$ (969)	$(1,651)	$ (4,126)	$ (5,950)
Photonics Technology Division	(176)	(167)	(1,401)	(1,071)
Commercial Imaging	(736)	(567)	(2,532)	(970)
Corporate activities	(628)	(534)	(1,985)	(1,614)
Operating loss	(2,509)	(2,919)	(10,044)	(9,605)
Interest expense	(522)	(1,117)	(1,547)	(2,445)
Interest income	39	59	204	199
Other income and expense, net	93	135	(315)	350
Loss from continuing operations before income taxes	$(2,899)	$(3,842)	$(11,702)	$(11,501)

Geographic Area Net Trade Revenues

	Three Months Ended		Nine Months Ended	
	Sept. 27, 2003	Sept. 28, 2002	Sept. 27, 2003	Sept. 28, 2002
	(In thousands)			
United States	$3,238	$2,619	$ 7,846	$ 9,386
Far East	4,378	4,117	16,366	12,105
Europe		1		300
Rest of World			6	1
Total	$7,616	$6,737	$24,218	$21,792

7. Income Taxes

For the three- and nine-month periods ended September 27, 2003, Intevac did not accrue a tax benefit due to the inability to realize additional refunds from loss carry-backs. Intevac accrued a tax benefit of $6.4 million for the nine-month period ended September 28, 2002. This resulted from federal tax law changes that allow losses incurred in 2001 and 2002 to be carried back 5 years. The Company s $16.2 million deferred tax asset is fully offset by a $16.2 million valuation allowance, resulting in a net deferred tax asset of zero at September 27, 2003.

8. Capital Transactions

During the nine-month period ending September 27, 2003, Intevac sold stock to its employees under the Company s Stock Option and Employee Stock Purchase Plans. A total of 190,650 shares were issued for which the Company received $644,000.

9. Financial Presentation

Certain prior year amounts in the Condensed Consolidated Financial Statements have been reclassified to conform to the 2003 presentation.

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INTEVAC, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. Subsequent Event

On October 31, 2003, Intevac issued a notice of automatic conversion of its 6 1/2% Convertible Subordinated Notes due 2009 pursuant to their terms. On November 7, 2003, $20.1 million in aggregate principal amount of these notes which was previously outstanding, was converted into an aggregate of approximately 2,871,857 shares of Intevac common stock at a conversion price of $7.00 per share. Prior to the issuance of the notice of automatic conversion, but subsequent to the three months ended September 27, 2003, $9.4 million in aggregate principal amount of these notes had been tendered for conversion by the holders, resulting in the issuance of 1,348,426 shares of Intevac common stock.

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REPORT OF GRANT THORNTON LLP, INDEPENDENT AUDITORS

The Board of Directors and Shareholders

Intevac, Inc.

We have audited the accompanying consolidated balance sheets of Intevac, Inc. as of December 31, 2002 and 2001 and the related consolidated statements of operations and comprehensive income, shareholders equity and cash flows for each of the three years in the period ended December 31, 2002. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Intevac, Inc. at December 31, 2002 and 2001, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2002, in conformity with accounting principles generally accepted in the United States of America.

Grant Thornton LLP

San Jose, California

January 29, 2003

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INTEVAC, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands)

	December 31,	
	2002	2001
ASSETS		
Current assets:		
Cash and cash equivalents	$28,457	$ 18,157
Trade and other accounts receivable, net of allowances of $269 and $225 at December 31, 2002 and 2001	4,991	8,046
Income taxes recoverable	214	
Inventories, including $9,914 and $4,070 held at customer locations at December 31, 2002 and 2001	15,871	21,691
Prepaid expenses and other current assets	961	478
Total current assets	50,494	48,372
Property, plant and equipment, at cost:		
Leasehold improvements	5,751	5,873
Machinery and equipment	16,216	21,096
	21,967	26,969
Less accumulated depreciation and amortization	15,174	18,105
	6,793	8,864
Investment in 601 California Avenue LLC	2,431	2,431
Debt issuance costs, net of amortization of $2,482 and $1,808 at December 31, 2002 and 2001	577	495
Other long term assets	3	3
Total assets	$60,298	$ 60,165
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities:		
Book overdraft	$ 459	$ 242
Accounts payable	1,280	2,386
Accrued payroll and related liabilities	1,379	1,573
Other accrued liabilities	3,723	3,547
Customer advances	12,344	13,464
Total current liabilities	19,185	21,212
Convertible notes	30,568	37,545
Commitments		
Shareholders equity:		
Undesignated preferred stock, no par value, 10,000 shares authorized, no shares issued and outstanding		
Common stock, no par value:		
Authorized shares 50,000		
Issued and outstanding shares 12,125 and 12,004 at December 31, 2002 and 2001, respectively	19,389	19,093
Accumulated other comprehensive income	189	122
Accumulated deficit	(9,033)	(17,807)

Total shareholders equity	10,545	1,408
Total liabilities and shareholders equity	$60,298	$ 60,165

See accompanying notes.

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INTEVAC, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(In thousands, except per share amounts)

	Years Ended December 31,		
	2002	2001	2000
Net revenues:			
Systems and components	$ 27,625	$ 43,599	$ 30,254
Technology development	6,159	7,885	5,795
Total net revenues	33,784	51,484	36,049
Cost of net revenues:			
Systems and components	20,009	30,025	20,658
Technology development	5,150	7,988	6,022
Goodwill write-off			1,056
Inventory provisions	1,316	3,716	6,323
Total cost of net revenues	26,475	41,729	34,059
Gross profit	7,309	9,755	1,990
Operating expenses:			
Research and development	10,846	14,478	10,576
Selling, general and administrative	7,752	6,745	4,415
Restructuring and other			(638)
Total operating expenses	18,598	21,223	14,353
Operating loss	(11,289)	(11,468)	(12,363)
Interest expense	(2,981)	(2,912)	(3,033)
Interest income	284	1,245	2,341
Other income and expense, net	16,168	1,228	731
Income (loss) before income taxes	2,182	(11,907)	(12,324)
Provision for (benefit from) income taxes	(6,592)	5,029	
Net income (loss)	$ 8,774	$(16,936)	$(12,324)
Other comprehensive income:			
Foreign currency translation adjustments	67	122	
Total adjustments	67	122	
Total comprehensive income (loss)	$ 8,841	$(16,814)	$(12,324)
Basic income (loss) per share:			
Net income (loss)	$ 0.73	$ (1.42)	$ (1.04)
Shares used in per share amounts	12,077	11,955	11,803
Diluted income (loss) per share:			
Net income (loss)	$ 0.66	$ (1.42)	$ (1.04)
Shares used in per share amounts	15,262	11,955	11,803

See accompanying notes.

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INTEVAC, INC.

CONSOLIDATED STATEMENT OF SHAREHOLDERS EQUITY
(In thousands)

	Common Stock		Accumulated Other Comprehensive Income	Retained Earnings (Accum. Deficit)	Total Shareholders Equity
	Shares	Amount			
Balance at January 1, 2000	11,715	$18,170	$	$ 11,453	$ 29,623
Shares issued in connection with:					
Exercise of stock options	20	58			58
Employee stock purchase plan	109	418			418
Income tax benefits realized from activity in employee stock plans		29			29
Net loss				(12,324)	(12,324)
Balance at December 31, 2000	11,844	$18,675	$	$ (871)	$ 17,804
Shares issued in connection with:					
Exercise of stock options	41	13			13
Employee stock purchase plan	119	405			405
Foreign currency translation adjustment			122		122
Net loss				(16,936)	(16,936)
Balance at December 31, 2001	12,004	$19,093	$122	$(17,807)	$ 1,408
Shares issued in connection with:					
Exercise of stock options	13	19			19
Employee stock purchase plan	108	273			273
Compensation expense in the form of common stock		4			4
Foreign currency translation adjustment			67		67
Net income				8,774	8,774
Balance at December 31, 2002	12,125	$19,389	$189	$ (9,033)	$ 10,545

See accompanying notes.

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INTEVAC, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ending December 31,		
	2002	2001	2000
Operating activities			
Net income (loss)	$ 8,774	$(16,936)	$(12,324)
Adjustments to reconcile net income (loss) to net cash and cash equivalents provided by (used in) operating activities:			
Depreciation	2,577	3,916	3,721
Deferred income taxes		4,988	2,734
Amortization of intangibles		7	1,042
Amortization of debt offering costs	672	244	244
Goodwill write-off			1,056
Inventory provisions	1,316	3,716	6,323
Gain on sale of Rapid Thermal Processing product line	(15,428)		
Gain on sale of equipment	(324)		
Gain on purchase of convertible notes	(23)	(1,408)	
Compensation expense in the form of common stock	4		
Loss on IMAT investment			125
Restructuring and other charges non-cash portion			856
Loss on disposal of investment		803	
Loss on disposal of equipment	13	8	2
Changes in assets and liabilities:			
Accounts receivable	2,264	1,547	1,614
Inventory	3,359	(7,252)	(6,666)
Prepaid expenses and other assets	(492)	366	(332)
Accounts payable	(1,107)	443	929
Accrued payroll and other accrued liabilities	335	639	(5,768)
Customer advances	(1,120)	(2,853)	6,466
Total adjustments	(7,954)	5	