HELIX TECHNOLOGY CORP
Form 10-K
March 16, 2005

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# FORM 10-K

(Mark One) ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

x

For the fiscal year ended December 31, 2004,
or

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

For the transition period from _____ to _____

Commission file number 0-6866

## HELIX TECHNOLOGY CORPORATION

(Exact name of registrant as specified in its charter)

| Delaware | 04-2423640 |
|---|---|
| (State of Incorporation) | (I.R.S. Employer Identification No.) |
| Mansfield Corporate Center, Nine Hampshire Street, Mansfield, Massachusetts | 02048-9171 |
| (Address of principal executive offices) | (Zip Code) |

Registrant's telephone number, including area code: **(508) 337-5500**

Securities registered pursuant to Section 12(b) of the Act: **None**

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

Common Stock, $1 Par Value

(Title of class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes

x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). Yes x No o

Aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of July 2, 2004, based upon the closing price of a share of the registrant's common stock as reported by the Nasdaq National Market on that date: $453,840,267

Number of shares outstanding of the registrant's Common Stock, $1 Par Value, as of February 25, 2005: 26,114,229

DOCUMENTS INCORPORATED BY REFERENCE

| Document Description | Part of Form 10-K into Which Incorporated |
|---|---|
| Portions of the registrant's Definitive Proxy Statement with respect to the 2005 Annual Meeting of Stockholders to be filed with the SEC no later than 120 days after the close of the Company's fiscal year | Part III |

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PART I

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements. These forward-looking statements appear principally in the sections entitled "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Forward-looking statements may appear in other sections of this report as well. Generally, the forward-looking statements in this report use words like "expect," "anticipate," "plan," "intend," "believe," "seek," "estimate," and similar expressions.

The forward-looking statements include, but are not limited to, statements regarding:

- Our strategic plans;
- The outlook for our business and industry;
- Anticipated sources of future revenues;
- Anticipated expenses, spending and savings from our cost reduction program;
- Anticipated levels of capital expenditures; and

- The sufficiency of capital to meet working capital and capital expenditure requirements.

Forward-looking statements are not guarantees of future performance and involve certain risks, uncertainties, and assumptions. Important factors that could cause our future results to differ materially from those expressed in any forward-looking statements made by us or on our behalf include, but are not limited to, market acceptance of and demand for our products, the success of our strategic initiatives, including our global support operations and new product introductions, the health of the global semiconductor capital equipment market and the timing and scope of any change in the current industry conditions, our success in sustaining order bookings, and the other risk factors contained in Exhibit 99.1 to this Annual Report on Form 10-K. As a result of the foregoing, we may experience material fluctuations in our operating results on a quarterly basis, which could materially affect our business, financial position, results of operations and stock price. We undertake no obligation to update the information contained in this report to reflect subsequently occurring events or circumstances.

**ITEM 1. BUSINESS.**

Helix Technology Corporation ("Company") is a world leader in the development, manufacture, and application of innovative vacuum technology solutions for the semiconductor, data storage, and flat panel display markets. Our vacuum systems provide enabling technology for several key steps within the semiconductor manufacturing process, including ion implantation, physical vapor deposition, chemical vapor deposition and etching. Semiconductor manufacturers use our systems to create and maintain a vacuum environment, which is critical to their manufacturing processes. We are a leading provider of vacuum systems technology to the world's largest semiconductor capital equipment and semiconductor manufacturers, placing us at a critical point in their advanced technology manufacturing process. We have long-standing customer relationships with many semiconductor capital equipment manufacturers, including Applied Materials, Axcelis, Novellus, Unaxis, Varian Semiconductor and Veeco, as well as semiconductor manufacturers such as AMD, Atmel, Freescale, Fujitsu, Infineon, Intel, Micron, NEC, Philips, Samsung, STMicroelectronics, Texas Instruments and TSMC. Our products are also used in a broad range of industrial manufacturing applications and advanced research and development laboratories.

We also provide an extensive range of global support and vacuum system monitoring services that lower our end-users' total costs of ownership. We increase our customers' system uptime through rapid response to potential operating problems. We also develop and deliver enhancements to our customers' installed base of production tools. Our service offerings include our TrueBlue$^{SM}$ Service Agreements, our GUTS® (Guaranteed Up Time Support) customer response system and our GOLDLink® (Global On-Line Diagnostics) support system, which provides a remote e-diagnostics solution that allows us to monitor, in real time, the vacuum system performance of our customers' production tools. Our GOLDLink capability has made us a leading total solution provider in the emerging market for Internet-based, proactive e-diagnostics for the semiconductor and semiconductor capital equipment industries.

On December 15, 2004, we entered into an agreement to acquire IGC Polycold Systems Inc. ("Polycold"), a producer of high-speed water vapor cryopumping and cryogenic cooling products, for $49.2 million in cash at closing and up to $3.3 million in transaction-related tax payments. The acquisition closed on February 15, 2005. Polycold's product lines, which include water vapor cryopumps, liquid nitrogen alternatives, detector coolers and gas chillers, will complement and extend our existing product offerings.



Industry Overview

In recent years the semiconductor industry has experienced significant growth in both the volume and complexity of devices manufactured. The growth in the volume of semiconductors produced has been driven by the increased demand for products historically using semiconductors, including telecommunications equipment, consumer electronics, personal computers and wireless communication devices. Semiconductor use is also increasing in new product areas ranging from automobiles to children's toys, the growth of the Internet, and the proliferation of applications in the data storage and data transfer industry. Furthermore, growing consumer demand for smaller, more sophisticated electronic products, such as mobile phones, laptop computers and wireless networking equipment, has increased the complexity of the semiconductors integrated into these products.

To meet these demands, semiconductor manufacturers have sought volume and efficiency improvements through increased equipment utilization, higher manufacturing yields, the addition of manufacturing equipment in existing facilities and the construction of new fabrication facilities. To achieve greater economies of production, the semiconductor industry is currently transitioning from building semiconductor wafers that are 200 millimeters in diameter to wafers that are 300 millimeters in diameter, with the goal of producing more chips per wafer, thus lowering the cost per chip. This transition to new 300-millimeter equipment is expected to continue over the next several years and represents one of the primary drivers of growth in the semiconductor capital equipment industry in the near term.

The production of advanced semiconductor chips is an extremely complex and logistically challenging manufacturing activity. To create integrated circuits, or semiconductor chips, a semiconductor manufacturer uses several sequential process steps including ion implantation; chemical vapor deposition and physical vapor deposition, which are referred to as CVD and PVD; and etching. Ion implantation equipment injects charged ions into the wafer to change a material's characteristics. CVD and PVD equipment is used to deposit materials onto the surface of the wafer. Etching equipment removes unwanted materials from the wafer. These steps, which comprise the initial fabrication of the integrated circuit and are referred to in the industry as front-end processes, are repeated many times to create the desired pattern on the silicon wafer. Following these front-end processes, the wafer is cut into individual devices, or chips, which then undergo additional assembly and testing steps.

Removing unwanted gases and other impurities is an integral aspect of several stages of the semiconductor fabrication process, particularly the deposition, ion implantation and etching stages. In order to achieve optimal production yields, semiconductor manufacturers must also ensure that each process operates at carefully controlled pressure levels. Impurities in the fabrication process or incorrect pressure levels can lower production yields, thereby significantly increasing the cost per usable semiconductor chip produced. To meet their manufacturing objectives, semiconductor manufacturers require high vacuum pumps to remove all potentially contaminating gases from the manufacturing process. In addition, in light of the importance of proper pressure measurement throughout the fabrication process, vacuum measurement systems that are capable of monitoring and maintaining appropriate pressure levels are critical to ensuring high product yields and preventing device defects.

**Helix Solution**

We are a leading manufacturer of highly specialized vacuum pumping and measurement systems that meet the demanding process requirements of manufacturers in the semiconductor, data storage and flat panel display markets. We also provide original equipment manufacturers, or OEMs, and end-users of our systems an extensive range of global support services, from vacuum systems design assistance to vacuum process performance monitoring. We believe our vacuum technology solutions increase productivity in the fabrication facility, thereby increasing the value of an OEM's production tool and increasing the device maker's return on investment. We also believe our leadership position in vacuum pumping and measurement systems stems from five key competitive advantages:

***Comprehensive, Integrated Vacuum Solutions.*** We combine our innovative vacuum pumping and measurement components with our proprietary On-Board® diagnostic and control technology to provide comprehensive, high-performance vacuum solutions. Our On-Board technology is based upon a comprehensive control architecture that serves as a foundation for the development of highly integrated product offerings. We provide both the hardware and software elements that integrate process control, diagnostics and communication capabilities for all components within the vacuum system. This integration capability extends to vacuum system components manufactured by other suppliers and allows our products to interoperate with their products. Our integrated solutions directly address our end-users' concerns by increasing system uptime, lowering the total cost of ownership, and facilitating the move to remote e-diagnostics of critical enabling processes. We further leverage the information collected by our On-Board technology to provide enhanced customer support services and a range of information-based services.

***Broad Customer Base.*** We have long-standing customer relationships with both OEMs and end-users of semiconductor capital equipment. Over the last three years, an average of approximately 49% of our net sales has come directly from end-users. We believe our strong relationships with end-users provide us with a competitive advantage over many other suppliers to the semiconductor capital



equipment industry. Our work with both OEMs and end-users provides us with unique insights into emerging technologies and applications. We understand our customers' specific needs, and we incorporate our insights into our innovative product offerings. Our balanced mix of OEM and end-user customers and status as a supplier to essentially

all of the major front-end OEMs in our segment demonstrate our leading position in the industry.

***Superior Global Customer Support.*** Continuous production tool operation is critical for our customers. We believe providing a high level of service and support gives us a competitive advantage and enhances our ability to build long-term customer relationships. We continue to build upon the solid relationships that have been established with our customers through the introduction of proactive TrueBlue Service Agreements. Helix TrueBlue Service Agreements allow our customers to realize the benefits of improved performance, increased productivity, ease of business transactions, and the application of knowledge in solving more of their problems. Our leading-edge technology and world-class customer support resources are leveraged as an integral part of our service and support capabilities. Through our GUTS rapid response offering, we provide our customers anywhere in the world access 24 hours a day to a trained Helix employee who can diagnose a problem and initiate a corrective action within one hour. GOLDLink allows us to help our customers monitor the operating performance of their manufacturing facilities and recommend preventative courses of action before problems occur. We have more than ten service and support offices around the world, and as of December 31, 2004, 163, or 27%, of our employees were dedicated to our global customer support activities.

***World-Class, Responsive Manufacturing Operations.*** We have established a fast-cycle-time manufacturing process that provides us with the flexibility to meet the rapidly changing requirements of our customers. We have harnessed our significant manufacturing expertise and our long-standing supplier relationships to build a "just-in-time" manufacturing process that utilizes outsourced subassembly for certain components and allows us to better manage the cyclicality of our business. Our "just-in-time" process allows us to respond to our OEM customers' rapidly changing product needs and help them operate their manufacturing processes at peak efficiency levels.

***Technological Leadership in Complex Vacuum Solutions.*** Since our inception in 1967 we have participated in the vacuum technology industry and have applied this knowledge to the development of sophisticated vacuum systems for advanced technology applications, such as the building of integrated circuits. Our team of scientists, product development personnel, manufacturing specialists and hardware and software engineers is focused on advancements in vacuum technology. Our customers recognize us as experts capable of assisting them in the design and selection of vacuum systems and components for their new product initiatives and fabrication facilities. As of December 31, 2004, we had 184 patents issued and 60 patents pending relating to the design and development of our products and systems.

**Products and Services**

***Vacuum Pumping Components and Systems***

Our CTI-Cryogenics cryopumps and systems create an impurity-free vacuum environment for both the PVD and ion implantation markets. Our pumps offer customers rapid, customizable pump speeds, quick system pumpdown and impurity-free vacuum pumping processes without the use of fluids, lubricants or moving parts, ensuring high product yields and process throughputs. Our On-Board system enables central monitoring and control, either in-fab or at remote sites, of every significant function of both individual pumps and entire vacuum networks. We currently supply essentially all major front-end semiconductor capital equipment OEMs and semiconductor manufacturers.

We also provide waterpumps and turbopumps, under the TurboPlus® line of products, to support the CVD and etch processes. Our waterpumps are high-performance vacuum pumps that optimize the performance of CVD and etch systems by increasing water vapor pumping speed by a factor of five or more, improving system throughput and providing better process results. TurboPlus Vacuum Pumps offer the process advantages of throughput pumping from the turbopump and the uptime benefits of high-speed water vapor pumping, integrated into a compact package with a single, easy-to-use interface.

Over the last three years, net sales of our CTI-Cryogenics products and related support services represented the majority of our consolidated net sales.

We completed our acquisition of Polycold during February 2005. Polycold designs and manufactures a line of closed-loop cryogenic refrigeration systems for vacuum deposition, process heat transfer, and other cooling applications with heat removal from 0.5 watts to 3600 watts and cooling to temperatures as low as -203 Celsius. Its products include water vapor cryopumps, liquid nitrogen alternatives, detector coolers and gas chillers. Polycold's products are used in a broad range of markets, such as semiconductors, flat panel displays, optical networking, detector cooling for drug discovery, aerospace, telescopic, and laboratory requirements, ophthalmic and glass surface coating, web coating, packaging and decorative coating processes.



Vacuum Measurement Components and Systems

Our Granville-Phillips STABIL-ION®, CONVECTRON® and MICRO-ION® vacuum measurement components and systems are used in the PVD, ion implantation, CVD, and etch processes. Our vacuum gauging products are also integrated into analytical instruments, primarily mass spectrometers. STABIL-ION, CONVECTRON and MICRO-ION systems are individually calibrated at numerous pressure values, resulting in a stable and accurate gauge that does not change calibration with time of use. This stable calibration is essential to starting the production process at the same true pressure on every production run. It also provides improved gauge-to-gauge reproducibility, which is essential for process replication.

Companies depend on our measurement systems to provide repeatable readings, ensuring that processes start at the desired pressure. Non-repeatable gauges can shift over time, causing two different effects:

- If the gauge reads lower than the actual pressure, a process can be started when the pressure is too high, possibly causing product defects.
- If the gauge reads higher than the actual pressure, the system will pump down to a pressure lower than necessary for a process. This is equivalent to system downtime.

Over the last three years, net sales of our Granville-Phillips products and related services represented between 16% and 20% of our net sales.

***Global Customer Support***

To our customers, even a few minutes of production downtime is unacceptable. Given the magnitude of the investment in plant and equipment and the value of the work-in-process, which is expected to increase with the move to 300-millimeter production equipment, tool availability is a priority for our customers.

From the industry standard of GUTS to the pioneering e-Diagnostic implementation of GOLDLink support, we have continually demonstrated our commitment to serving our customer base with the most advanced, innovative tools available.

We introduced our GUTS rapid response system in 1986. Our GUTS rapid response system is broadly recognized for delivering superior responsiveness to problems whenever and wherever they may occur. Every call to our customer service center is answered by a capable, empowered employee who has the resources to diagnose a customer problem and initiate corrective action, including dispatching a technician or part to the customer in less than one hour.

While our GUTS rapid response system continues to be a leader in reactive customer support, the industry is moving toward enhanced service offerings that rely on proactive problem solving to boost customer productivity. Extended service agreements, which leverage our core competencies and rely on key technology and capabilities, such as Internet-based remote e-diagnostics, can further enhance production efficiency and throughput. With the introduction of TrueBlue Service Agreements, we are well positioned to extend the benefits of e-diagnostics using our On-Board

Information Network and our GOLDLink capability. Coupled with our On-Board technology, the GOLDLink network provides us with the ability to access performance data of key vacuum system components, including third-party products, right at the production tool. GOLDLink consists of three key components: hardware and software located on tools in the manufacturing facility, our customer support center and support engineers, and the networks connecting the tools and our support operations.

Our GOLDLink capability allows our customers to redirect their employees to focus on their core competencies by leveraging our vacuum technology and control core competencies. Our ability to detect performance anomalies before they cause a system failure minimizes our customers' risk of significant tool downtime and can result in increased plant productivity.

In the past few years, we received approximately 30% to 37% of our net sales from our global customer support, including the delivery and installation of spare parts, retrofits and upgrades.

**Customers**

We market and sell our products and services primarily to large original equipment and end-user manufacturers of semiconductor, data storage, flat panel display, and other industrial applications. Net sales to OEMs represented 54%, 49%, and 50% of our net sales for 2004, 2003 and 2002, respectively.



Semiconductor Customers

We sell our products and services primarily to semiconductor capital equipment manufacturers and end-users for incorporation into equipment used to make integrated circuits. Our products are currently used in a variety of applications including CVD, PVD, ion implantation and etch. We are also building products for use in the lithography process of semiconductor manufacturing. Precise vacuum pressure levels are critical in enabling the production of integrated circuits. We anticipate that the semiconductor capital equipment industry will continue to be a substantial part of our business for the foreseeable future.

***Data Storage Customers***

We sell products and services to data storage equipment manufacturers and to data storage device manufacturers for use in producing a variety of products including CDs; computer hard disks, including both media and thin-film heads; CD-ROMs; and DVDs. These products use a PVD process to produce optical and magnetic thin-film layers, as well as a protective wear layer.

***Flat Panel Display Customers***

We sell our products and services to equipment manufacturers and manufacturers of flat panel displays, which have fabrication processes similar to those employed in manufacturing integrated circuits. Flat panel technology produces bright, sharp, large, color-rich images on flat screens for products ranging from hand-held computer games, to laptop and desktop computer monitors, to large-screen televisions.

***Other Customers***

We sell our products and services to OEMs and producers of end products in a variety of industrial markets. Our products are used in a variety of analytical instruments and industrial and scientific research products. Thin-film optical coatings are used in the manufacture of many industrial products including architectural glass, eyeglasses, lenses, and front surface mirrors. Thin films of diamond-like coatings and other materials are currently applied to products to strengthen and harden surfaces on such diverse products as tools, razor blades, automotive parts, and hip joint replacements.

The table below represents some of our customers in each of our primary target markets:

| Semiconductors | Semiconductor Equipment | Data Storage |
|---|---|---|

| | | |
|---|---|---|
| AMD | Applied Materials | Seagate |
| Atmel | Axcelis | Unaxis |
| Freescale | Novellus | Veeco |
| Fujitsu | Varian Semiconductor | |
| Infineon | Veeco | |
| Intel | | Flat Panel Displays |
| Micron | | |
| NEC | | AKT |
| Philips | | LG Philips |
| Samsung | | |
| STMicroelectronics | | |
| Texas Instruments | | Analytical Instruments |
| TSMC | | |
| | | Agilent |
| | | Riber |

Our one reportable segment is the development, manufacture, sale and support of cryogenic and vacuum equipment. Our largest customer is Applied Materials, the world's largest manufacturer of semiconductor capital equipment, representing 28%, 20% and 27%, of our net sales for 2004, 2003 and 2002, respectively. Our 10 largest customers accounted for 53%, 44%, and 43%, of our net sales for 2004, 2003, and 2002, respectively.

**Sales and Marketing**

We sell our products and services, primarily through direct sales personnel, to customers in the United States, Europe, and the Pacific Rim. Our sales and support personnel are located at our headquarters in Mansfield, Massachusetts, and in regional offices in Longmont, Colorado; Santa Clara, California; Austin, Texas; Tempe, Arizona; Portland, Oregon; Amsterdam, the Netherlands; Darmstadt, Germany;



Orsay, France; Dunfermline, Scotland; Tokyo, Japan; Hsinchu, Taiwan; and Shanghai and Hong Kong, China. We also have distributors and representatives in other major markets. See Note H, "Segment Information," of the Notes to Consolidated Financial Statements for further discussion of our U.S. and international sales.

We market our products worldwide to companies in our target customer segments. We use several marketing programs focused on our targeted markets to support the sale and distribution of our products. We use exhibitions at a limited number of prominent tradeshows and conferences and presentations at technology seminars to promote awareness of the Company and its products. We also utilize promotional product literature and advertise and publish technical articles in select trade and technical journals.

**Manufacturing**

We manufacture our pump and compressor components at our facility in Mansfield, Massachusetts, and our measurement gauge components at our Longmont, Colorado, facility. Our use of a lean manufacturing organization, including fast cycle times, embedded quality control, and supply chain management, positions us to meet or exceed our customers' demands.

Our manufacturing activities consist of the assembly and testing of components and subassemblies, which are then integrated into our final products. Once final testing of all subassemblies is completed, the final product is subjected to a series of reliability enhancing operations prior to shipment to customers. We purchase a wide range of electronic, mechanical, and electrical components, some of which are designed to our specifications. We outsource some of our subassembly work. We consider our ability to meet our customers' significantly fluctuating product demands at consistently short lead times using demand flow and lean manufacturing techniques to be a distinct competitive advantage.

Our business is, generally, not dependent on the availability of raw materials or components from any single source. Certain components, however, may be available from only one or two qualified sources. Our policy is to develop alternative sources for components and, where possible, to avoid using scarce raw materials in our products.

**Research and Development**

Our industry continues to experience rapid technological change, requiring us to frequently introduce new products and enhancements. We believe that our success will depend upon our ability to identify and provide total systems solutions for our customers' problems. We seek to develop new products and enhancements to our existing products that meet changing customer requirements in our current and new markets. We have in the past made, and expect to continue to make, substantial investments in product and technological development. We believe our experience and relationships will remain important factors to enable us to develop products to meet our customers' needs and penetrate our target markets. Through our direct sales process we monitor changing customer needs, changes in the marketplace and emerging industry standards, and are therefore better able to focus our research and development efforts to address these evolving industry requirements.

We expended $10.8 million in 2004, $10.1 million in 2003, and $14.7 million in 2002 on research and development efforts. We have continued our commitment to invest in new product development to maintain our technological and market leadership, including new products for commercial applications, development of products to meet the requirements of 300-millimeter wafer production tools, and enhancements of our core products to improve reliability and manufacturability and increased performance and broader application of GOLDLink capabilities. We perform our research and product development activities at our headquarters in Mansfield, Massachusetts, and at our Longmont, Colorado, facility.

**Joint Venture with ULVAC**

We participate in a joint venture, ULVAC Cryogenics, Inc., or UCI, with ULVAC Corporation of Chigasaki, Japan. Formed in 1981, UCI manufactures and sells cryogenic vacuum pumps, principally to ULVAC, one of the largest semiconductor and flat panel OEMs in Japan. Each company owns 50% of UCI and we made an initial cash investment of approximately $100,000, with no subsequent cash investments. The joint venture arrangement includes a license and technology agreement from us and a management and consultation agreement from ULVAC.

**Competition**

The markets for our products and services are highly competitive and are characterized by ongoing technological development and changing customer requirements. We believe that market-driven pressures on our customers to increase productivity and reduce costs are prevalent throughout the markets for our products. In markets in which we have an established presence, we compete primarily on the basis of product performance, applications expertise, and historical customer relationships and support. In new markets for our products,

we compete primarily on the basis of product performance, price, and range of features. Other significant competitive factors in our markets include product reliability, on-time delivery, technology, and the ability to adaptively provide solutions for our customers' evolving needs.

We have foreign and domestic competitors for each of our product lines. Some of these competitors are subsidiaries or divisions of larger corporations and have greater resources than we have. If these competitors bring technologically superior products to market in the future, they could overcome our competitive advantages. Our ability to continue to compete successfully depends on our ability to make timely introductions of system enhancements and new products and services, particularly relating to the new 300-millimeter technology, while continuing to provide excellent pre- and post-sales support on existing products and services. We believe we will be required to maintain a high level of investment in research and development and sales and marketing in order to remain competitive.

We are among a relatively small number of companies in the vacuum technology market. If one of our competitors acquires, or is acquired by, another company in this sector, it could result in a stronger competitor with greater resources than we have. Alternatively, if one of our customers were to acquire a vacuum technology company so that it could supply its own requirements, our net sales would decrease.

**Employees**

As of December 31, 2004, we had 501 permanent and 100 temporary employees worldwide, of which 483 were employed in North America, 78 in Asia and 40 in Europe. As of December 31, 2004, none of our employees based in the United States were represented by a union, and we have never experienced a work stoppage, slowdown or strike. We consider our relationship with our employees to be good.

**Environmental Affairs**

We are subject to environmental laws and regulations in the countries in which we operate that regulate, among other things: air emissions; water discharges; and the generation, use, storage, transportation, handling and disposal of solid and hazardous wastes produced by our manufacturing and research and development activities. As with other companies engaged in like businesses, the nature of our operations exposes us to the risk of environmental liabilities, claims, penalties and orders. We believe, however, that our operations are in substantial compliance with applicable environmental laws and regulations and that there are no pending environmental matters that would have a material impact on our business.

**Intellectual Property**

We rely on patent, copyright, trademark and trade secret protection, as well as contractual restrictions, in the United States and in other countries to protect our proprietary rights in our products and our business. As of December 31, 2004, we had 99 patents in the United States and 85 patents in other countries, as well as 60 patent applications (21 in the United States and 39 in other countries) on file with various patent agencies worldwide. These patents expire at various years through 2021.

We have a number of trademarks that we consider important to our business. These trademarks are protected by registration in the United States and other countries in which we market our products.

**Backlog**

We had a backlog of orders of approximately $13.4 million that we believed to be firm at December 31, 2004, compared with $15.0 million at December 31, 2003. We expect to recognize revenue from essentially all of the December 31, 2004 backlog during 2005.

**Available Information**

Our Internet address is www.helixtechnology.com. We make available free of charge through our website our annual report on
Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on the website is not part of this report.



ITEM 2. PROPERTIES.

We occupy approximately 290,900 square feet worldwide, as described in the table below.

| Location | Size (Sq. Ft.) | Lease Expires | Functions |
|---|---|---|---|
| Massachusetts | 160,000 | 2006 (1) | Corporate headquarters, engineering, |
| | 14,000 | 2005 | manufacturing, sales and marketing, customer support, repair center, and administration |
| Colorado | 60,000 | 2015 | Engineering, manufacturing, and sales and marketing |
| California | 11,000 | 2005 | Sales office, customer support, and repair center |
| Texas | 6,000 | 2007 | Sales office and customer support |
| Scotland | 1,000 | 2005 | Sales office and customer support |
| Germany | 6,000 | 2008 | Sales office and customer support |
| France | 6,900 | 2006 | Sales office, customer support, and repair center |
| Japan | 8,100 | 2006 | Sales office, customer support, and repair center |
| Taiwan | 9,600 | 2006 | Sales office, customer support, and repair center |
| China | 8,300 | 2005 | Sales office, customer support, and repair center |

(1) The lease on this facility provides for renewal options for up to fifteen additional years.

We believe we have adequate facilities to meet our currently anticipated requirements and that suitable additional or substitute facilities will be available if required.

**ITEM 3. LEGAL PROCEEDINGS.**

We may be involved in the normal course of business in ordinary routine litigation incidental to the business. We are not a party to any proceedings that involve amounts that would have a material effect on our financial position or results of operations if such proceedings were resolved unfavorably.

**ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.**

During the quarter ended December 31, 2004, no matters were submitted to a vote of security holders through the solicitation of proxies or otherwise.



PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Our common stock is traded on the Nasdaq National Market under the symbol HELX. At December 31, 2004, there were 26,114,229 shares of common stock outstanding and approximately 506 common stockholders of record.

**Price Range of Common Stock and Cash Dividend Per Common Share**

The following table sets forth the high and low sale prices per share of our common stock during each of the quarters for the two most recent fiscal years.

| | | First Quarter | Second Quarter | Third Quarter | Fourth Quarter |
|---|---|---|---|---|---|
| 2004 | | | | | |
| | High | $27.90 | $26.18 | $19.64 | $17.61 |
| | Low | $20.37 | $16.95 | $12.62 | $12.53 |
| | Cash dividends per share | $ 0.04 | $ 0.04 | $ 0.08 | $ 0.08 |
| 2003 | | | | | |
| | High | $14.20 | $14.28 | $19.28 | $22.28 |
| | Low | $ 6.95 | $ 8.35 | $12.89 | $14.90 |
| | Cash dividends per share | $ 0.04 | $ 0.04 | $ 0.04 | $ 0.04 |

On January 27, 2005, the Board of Directors declared a quarterly cash dividend of $0.08 per common share payable on February 17, 2005, to common stockholders of record at the close of business on February 7, 2005.

**ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA**.

The following table summarizes certain selected consolidated financial data that should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere herein.

December 31,

| (in thousands except per share data) | 2004 | 2003 | 2002 | 2001 | 2000 |
|---|---|---|---|---|---|
| Net sales | $ 159,674 | $ 105,883 | $ 100,241 | $ 112,994 | $ 253,085 |
| Net income (loss) (1) | $ 27,511 | $ (11,136 ) | $ (19,418 ) | $ (5,940 ) | $ 45,870 |
| Net income (loss) per weighted average share, basic | $ 1.05 | $ (0.43 ) | $ (0.77 ) | $ (0.26 ) | $ 2.04 |
| Net income (loss) per weighted average share, diluted | $ 1.05 | $ (0.43 ) | $ (0.77 ) | $ (0.26 ) | $ 2.02 |
| Cash dividends per share | $ 0.24 | $ 0.16 | $ 0.28 | $ 0.44 | $ 0.48 |
| Total assets | $ 169,564 | $ 145,990 | $ 159,471 | $ 113,580 | $ 141,968 |
| Long-term obligations (2) | $ 6,403 | $ 8,352 | $ 8,928 | $ 6,758 | $ 5,586 |
| Weighted average shares, basic | 26,110 | 26,099 | 25,364 | 22,565 | 22,498 |
| Weighted average shares, diluted | 26,187 | 26,099 | 25,364 | 22,565 | 22,762 |

(1) Net income for the year ended December 31, 2004, reflects a reversal totaling $8,935,000 of valuation allowance against net deferred tax assets and a net tax benefit of $4,534,000 related to the settlement of an IRS audit. (See Management's Discussion and Analysis - Provision (Benefit) for Income Taxes.) Net loss for the year ended December 31, 2003, reflects a $10,674,000 charge to establish a full valuation allowance against net deferred tax assets. Net loss for the year ended December 31, 2002, reflects $13,214,000 of a litigation settlement, restructurings and other charges. Net loss for the year ended December 31, 2001, reflects a restructuring charge of $1,047,000 related to workforce reductions.

(2) Long-term obligations consist of accrued retirement costs relating to our defined benefit pension plan and Supplemental Key Executive Retirement Plan.



ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

*You should read the following discussion and analysis together with our financial statements, related notes and other financial information appearing elsewhere in this report. In addition to historical information, the following discussion and other parts of this report contain forward-looking information that involves risks and uncertainties. Our actual results could differ materially from those anticipated by such forward-looking information due to competitive factors and other factors discussed under "Forward-Looking Statements" in Part 1 and under "Important Factors That May Affect Future Results" in Exhibit 99.1 to this Annual Report on Form 10-K.*

**Overview**

We are a world leader in the development, manufacture, and application of innovative vacuum technology solutions for the semiconductor, data storage, and flat panel display markets. Our vacuum systems provide enabling technology for several key steps within the semiconductor

manufacturing process, including ion implantation, physical vapor deposition, chemical vapor deposition and etching. Semiconductor manufacturers use our systems to create and maintain a vacuum environment, which is critical to their manufacturing processes. We are a leading provider of vacuum systems technology to the world's largest semiconductor capital equipment and semiconductor manufacturers, placing us at a critical point in their advanced technology manufacturing process. We have long-standing customer relationships with many semiconductor capital equipment manufacturers, including Applied Materials, Axcelis, Novellus, Unaxis, Varian Semiconductor and Veeco, as well as semiconductor manufacturers such as AMD, Atmel, Freescale, Fujitsu, Infineon, Intel, Micron, NEC, Philips, Samsung, STMicroelectronics, Texas Instruments, and TSMC. Our products are also used in a broad range of industrial manufacturing applications and advanced research and development laboratories.

We also provide an extensive range of global support and vacuum system monitoring services that lower our end-users' total costs of ownership. We increase our customers' system uptime through rapid response to potential operating problems. We also develop and deliver enhancements to our customers' installed base of production tools. Our service offerings include our TrueBlue Service Agreements, our GUTS (Guaranteed Up Time Support) customer response system and our innovative GOLDLink (Global On-Line Diagnostics) support system, which provides a remote e-diagnostics solution that allows us to monitor, in real time, the vacuum system performance of our customers' production tools. Our GOLDLink capability has made us a leading total solution provider in the emerging market for Internet-based, proactive e-diagnostics for the semiconductor and semiconductor capital equipment industries.

The principal market we serve is the global semiconductor capital equipment industry, a highly cyclical business. As a result, we have experienced significant variations in net sales, expenses, and results of operations in the periods presented, and such variations are likely to continue.

Critical Accounting Policies

Our discussion and analysis of our results of operations and liquidity and capital resources are based on our consolidated financial statements which have been prepared in accordance with accounting principles generally accepted in the United States. 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 disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, adequacy of reserves, valuation of investments and income taxes. We base our estimates on historical and anticipated results and trends and on various other assumptions that we believe are reasonable under the circumstances, including assumptions as to future events. These estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. By their nature, estimates are subject to an inherent degree of uncertainty. Actual results may differ from our estimates. We believe that the following significant accounting policies and assumptions may involve a higher degree of judgment and complexity than others.

*Revenue Recognition and Accounts Receivable.* We recognize net sales from product sales upon shipment provided title and risk of loss have been transferred to the customer, there is persuasive evidence of an arrangement, fees are fixed or determinable, and collection is reasonably assured. We generally have no obligations to customers after the date that product is shipped other than pursuant to warranty obligations. Returns and customer credits are infrequent and recorded as a reduction to sales. Discounts from list prices are recorded as a reduction to sales at the time of sale. Net sales from global customer support are recognized as performed or ratably over the period of the related agreements. Upgrade sales result from an end-user's desire to enhance some aspect of its existing Helix products. Net sales from upgrade sales requiring us to complete the installation is recognized upon completion of the installation and customer acceptance. Net sales from upgrade sales that do not require us to provide installation are recognized upon product shipment presuming all other revenue recognition criteria are met. We enter into multiple-element contracts that include the sale of both products and services. Revenues from contracts with multiple-element arrangements, such as those including products



and services, are recognized as each element is earned based on the relative fair value of each element. The fair value of these elements is determined based upon prices charged to customers when the elements are sold separately.

As part of a sale, we offer customers a warranty on defects in materials and workmanship. We continuously monitor and track the related product returns and record a provision for the estimated amount of such future returns based on notification we receive of pending returns. While such returns have historically been within our expectations and the provisions established, we cannot guarantee that we will continue to experience the same return rates that we have in the past. Any significant increase in material and workmanship defect rates and the resulting credit returns could have a material adverse impact on our operating results for the period or periods in which such returns materialize. We also maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. If the financial condition of our customers were to deteriorate resulting in an impairment of their ability to make payments, additional allowances might be required.

*Inventory and Reserves for Excess and Obsolescence.* We value inventory at the lower of cost (first-in, first-out method) or market. We regularly review inventory quantities on hand and record a provision to write down inventory to its estimated net realizable value, if less than cost. This estimate is based upon management's assumptions of future material usage and obsolescence, which are a result of future demand and market conditions. If actual market conditions become less favorable than those projected by management, additional inventory provisions may be required. If inventory is written down to its net realizable value and subsequently there is an increased demand for the inventory at a higher value, the increased value of the inventory is not realized until the inventory is sold, which will result in improved margins in the period in which the product is sold.

*Tax Contingencies.* Tax contingencies are recorded to address potential exposures involving tax positions we have taken that could be challenged by taxing authorities. These potential exposures result from the varying application of statutes, rules, regulations and interpretations. Our estimate of the value of our tax contingencies contains assumptions based on past experiences and judgments about potential actions by taxing jurisdictions.

*Deferred Income Taxes.* Each reporting period we estimate our ability to realize our net deferred tax assets. Realization of our net deferred tax assets is dependent upon our generating sufficient taxable income in the appropriate tax jurisdictions in future years to obtain benefit from the reversal of net deductible temporary differences and from tax loss and tax credit carryforwards. We reassessed our need for a valuation allowance and determined under applicable accounting criteria that a full valuation allowance was required in the third quarter of 2003. During the fourth quarter of 2004, we determined the available positive evidence carried more weight than the historical negative evidence and concluded it was more likely than not that the net deferred tax assets would be realized in future periods. Therefore, a significant portion of the valuation allowance was released.

*Retirement Obligations.* We have retirement obligations that are developed from actuarial valuations. Inherent in these valuations are key assumptions, including discount rates, rates of compensation increases, and expected long-term rates of return on plan assets, which are usually updated on an annual basis at the beginning of each fiscal year. We are required to consider current market conditions, including changes in interest rates, in making these assumptions. Changes in the related retirement benefit costs may occur due to changes in assumptions.

**RESULTS OF OPERATIONS**

***Fiscal Year Ended December 31, 2004, Compared to the Fiscal Year Ended December 31, 2003***

**Revenue and Gross Margin**

The following table presents our revenue and gross margin:

| (in thousands) | 2004 | 2003 | $ Change | % Change |
|---|---|---|---|---|
| Net sales | $ 159,674 | $ 105,883 | $ 53,791 | 50.8% |
| Cost of sales | 95,849 | 69,836 | 26,013 | 37.2 |
| Gross margin | $ 63,825 | $ 36,047 | $ 27,778 | 77.1% |

The increase in net sales was driven primarily by the recovery in the semiconductor capital equipment manufacturing sector. In 2004, this highly cyclical sector experienced a strong recovery in demand from the bottom of the cycle we experienced in 2003 and 2002. Sales into this sector increased by approximately 81% in 2004 compared to 2003,

while product sales into the non-semiconductor market increased by approximately 37%. Internationally, our business grew by approximately $10.5 million, with Germany and Japan



accounting for almost 80% of the increase, again demonstrating the demand in the industry. Approximately 27% of the international increase was attributable to the favorable impact of foreign currency exchange rates, specifically the Euro and Japanese yen.

The gross margin as a percentage of net sales for 2004 was 40.0% compared with 34.0% for 2003. The improvement in the gross margin percentage for 2004 was primarily attributable to the higher absorption of fixed costs due to the higher sales volume. A slight improvement in our variable production costs, specifically personnel-related costs, was offset by slight increases in the cost of materials.

**Operating Expenses**

The following table presents our operating expenses:

| (in thousands) | 2004 | 2003 | $ Change | % Change |
|---|---|---|---|---|
| Research and development | $ 10,826 | $ 10,082 | $ 744 | 7.4% |
| Selling, general and administrative | 35,623 | 31,280 | 4,343 | 13.9 |
| Total operating expenses | $ 46,449 | $ 41,362 | $ 5,087 | 12.3% |

As a strategic matter, we are committed to developing technologies to support a new generation of products for 300-millimeter-capable production tools, to expand our support capability, and to improve our core component product lines. In terms of absolute dollars spent, we increased our research and development ("R&D") expenses in 2004 by about 7.4% compared to 2003. However, because of the significant increase in our net sales in 2004, as a percentage of net sales, R&D expenses declined to 6.8% from 9.5% in 2004 and 2003, respectively.

The increase in SG&A expenses is attributable to increased costs of regulatory compliance, higher variable compensation expenses as a result of higher operating profits and higher selling expenses as a result of higher commissionable sales. As a percentage of net sales, selling, general and administrative ("SG&A") expenses were 22.3% and 29.5% in 2004 and 2003, respectively.

**Joint Venture Income**

Income from our joint venture in Japan increased 197%, from $1.2 million in 2003 to $3.5 million in 2004. The increase over 2003 is attributable to the growth of the flat panel display portion of the electronics capital equipment market.

**Interest Income and Other, Net**

Interest income and other, net, slightly increased to $1.1 million in 2004 from $0.9 million in 2003. This reflects higher 2004 average cash and investment balances. Interest income was earned primarily from investments in cash

equivalents, municipal government agencies and tax-free bonds, and investment-grade securities.

**Provision (Benefit) for Income Taxes**

We had a pretax income of $21.9 million in 2004 and a benefit for income taxes of $5.6 million, resulting in an effective tax rate benefit of 25.3%. The 2004 tax rate differs from the U.S. statutory rate primarily due to the utilization of unbenefitted prior-year net operating losses and the release of the valuation allowance associated with certain deferred tax assets, which aggregated $8.9 million. Additionally, subsequent to our press release and Form 8-K filing on January 28, 2005, we received verification of a settlement with the IRS concerning the IRS' examination of our fiscal 1997 through 2002 income tax returns. As a result, we recognized a favorable tax benefit of $4.5 million, net of additional valuation allowance required.

We had a pretax loss of $3.2 million in 2003 and a corresponding provision of $7.9 million. This provision was primarily attributable to the establishment of the valuation allowance against our deferred tax assets in accordance with Statement of Financial Accounting Standards ("SFAS") 109, "Accounting for Income Taxes".

In October 2004, the American Jobs Creation Act of 2004 ("AJCA") was signed into law. The AJCA contains a series of provisions, several of which are pertinent to us. The AJCA creates a temporary incentive for U.S. multinational corporations to repatriate accumulated income abroad by providing an 85% dividends received deduction for certain dividends from controlled foreign corporations. It has been our practice to permanently reinvest all foreign earnings into our foreign operations, and we currently still



plan to continue to reinvest our foreign earnings permanently into our foreign operations. Should we determine that we plan to repatriate any of our foreign earnings, we will be required to establish a deferred tax liability on such earnings.

The AJCA eliminates the extraterritorial income exclusion for transactions occurring after December 31, 2004. However, the AJCA provides transitional relief, allowing an exclusion of 80% (of the exclusion previously allowable) for transactions occurring in 2005 and 60% for transactions occurring in 2006.

The AJCA also provides U.S. corporations with an income tax deduction equal to a stipulated percentage of qualified income from domestic production activities ("qualified activities"). The deduction, which cannot exceed 50% of W-2 wages paid, is phased in as follows: 3% of qualified activities 2005 and 2006, 6% in 2007 through 2009, and 9% in 2010 and thereafter. The impact of the AJCA on our tax rate is not yet known.

*Fiscal Year Ended December 31, 2003, Compared to the Fiscal Year Ended December 31, 2002*

Revenue and Gross Margin

The following table presents our revenue and gross margin:

| (in thousands) | 2003 | 2002 | $ Change | % Change |
|---|---|---|---|---|
| Net sales | $ 105,883 | $ 100,241 | $ 5,642 | 5.6% |

| | | | | |
|---|---|---|---|---|
| Cost of sales | 69,836 | 73,037 | (3,201) | (4.4) |
| Gross margin | $ 36,047 | $ 27,204 | $ 8,843 | 32.5% |

During most of 2003, we continued to experience the significant slowdown in the global market for semiconductor capital equipment that began in 2001. In the last quarter of 2003, however, we had an increase in both orders and sales as the industry began to show signs of expansion. During 2003, pricing was essentially unchanged. The majority of the increase in net sales was realized in our international operations which benefited from the expansion in the semiconductor marketplace. International net sales increased from $24.0 million in 2002 to $30.6 million in 2003, an increase of approximately 27%, of which Germany, Taiwan, and Japan accounted for almost 80%. Approximately 40% of the international increase is attributable to the favorable impact of foreign currency exchange rates, specifically the Euro and Japanese yen.

The gross margin as a percentage of net sales for 2003 was 34.0%, compared with 27.1% for 2002. The improvement in gross margin percentage for 2003 is primarily due to the lower overhead costs resulting from our cost reduction actions taken in the fourth quarter of 2002, favorable material costs, and the 2002 fourth quarter charge for excess and obsolete inventory of approximately $1.7 million. The cost reduction actions attributable to manufacturing realized savings of approximately $2.0 million in indirect labor. Favorable material costs yielded savings of approximately $2.0 million. These lower costs were partially offset by some temporary increases in production and customer support costs incurred in the middle of the year relating to our new generation of vacuum technology totaling approximately $0.6 million. These costs were incurred to improve functionality of one of our newer product lines. In addition, the lower manufacturing costs were offset by an increase of approximately $1.8 million of our internal cost allocations absorbed within cost of goods sold for depreciation associated with our information system and costs associated with our customer support engineers.

**Operating Expenses**

The following table presents our operating expenses:

| (in thousands) | 2003 | 2002 | $ Change | % Change |
|---|---|---|---|---|
| Research and development | $ 10,082 | $ 14,670 | $ (4,588) | (31.3)% |
| Selling, general and administrative | 31,280 | 34,918 | (3,638) | (10.4) |
| Litigation settlement costs | -- | 2,800 | (2,800) | (100.0) |
| Restructuring and other charges | -- | 8,714 | (8,714) | (100.0) |
| Total operating expenses | $ 41,362 | $ 61,102 | $ (19,740) | (32.3)% |



As a percentage of net sales, R&D expenses were 9.5% and 14.6% in 2003 and 2002, respectively. The decrease in overall R&D expenses in 2003 compared to 2002 is due primarily to the cost reduction actions taken in the fourth quarter of 2002. Staff reductions within R&D contributed approximately $4.6 million to the decline.

As a percentage of net sales, SG&A expenses were 29.5% and 34.8% in 2003 and 2002, respectively. The decrease in SG&A in 2003 compared to 2002 included approximately $2.0 million attributable to lower internal cost allocations for depreciation associated with our information system and costs associated with our customer support engineers. In addition, approximately $1.4 million of this decline is attributable to cost savings realized from the restructuring program implemented in the fourth quarter of 2002, specifically personnel related costs.

In 2002, the litigation settlement costs were associated with the settlement of a lawsuit related to certain discontinued products.

In 2002, we initiated a worldwide cost-reduction program and the suspension of an internal-use software development program in response to the continued duration and severity of the slowdown in the semiconductor capital equipment industry. The cost-reduction program included severance and fringe benefits to terminate approximately 130 employees and included closure or consolidation of selected facilities worldwide. This program was substantially completed in 2003.

**Joint Venture Income**

Income from our joint venture in Japan for 2003 increased to $1.2 million from $0.6 million in 2002. The improvement over 2002 reflects improvement in the flat panel display portion of the semiconductor capital equipment market.

**Interest Income and Other, Net**

Interest income and other, net, was $0.9 million for both 2003 and 2002. This reflects higher 2003 average cash balances offset by lower interest rates. Interest income was earned primarily from investments in cash equivalents, municipal government agencies and tax-free bonds, and investment-grade securities.

**Provision (Benefit) for Income Taxes**

We had a pretax loss of $3.2 million in 2003, compared with a pretax loss of $32.4 million for 2002. In 2003 we recorded an income tax provision of $7.9 million. This provision was primarily attributable to the establishment of the valuation allowance against our deferred tax assets in accordance with SFAS 109, "Accounting for Income Taxes" and to record state and foreign income taxes for 2003. If we generate future taxable income domestically against which these tax attributes may be applied, some portion or all of the valuation allowance would be reversed and increase net income reported in future periods. The effective tax rate for 2002 was 40%. The tax rates differ from the U.S. statutory rate primarily due to tax credits and undistributed nontaxable equity income from our joint venture. These tax credits and equity income increase our tax rate on pretax losses and decrease our tax rate on pretax income.

**Quarterly Financial Results**

The following table presents selected unaudited financial information for the eight quarters in the period ended December 31, 2004. The results for any quarter are not necessarily indicative of future quarterly results and, accordingly, period-to-period comparisons should not be relied upon as an indication of future performance.

| | Quarter Ended | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Q1 2003 | Q2 2003 | Q3 2003 | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 |
| (in thousands | | | | | | | | |

| except per share data) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Net sales | $ 23,623 | $ 24,555 | $ 25,973 | $ 31,732 | $ 40,376 | $ 44,024 | $ 40,353 | $ 34,921 |
| Gross margin | 7,817 | 7,528 | 8,840 | 11,862 | 15,800 | 18,058 | 16,223 | 13,744 |
| Operating income (loss) | (2,634 ) | (2,616 ) | (1,070 ) | 1,005 | 4,888 | 6,657 | 4,610 | 1,221 |
| Net income (loss) | (1,412 ) | (1,413 ) | (9,104 ) | 793 | 4,672 | 6,346 | 5,769 | 10,724 |
| Net income (loss) per weighted average share, basic | (0.05 ) | (0.05 ) | (0.35 ) | 0.03 | 0.18 | 0.24 | 0.22 | 0.41 |
| Net income (loss) per weighted average share, diluted | $ (0.05 ) | $ (0.05 ) | $ (0.35 ) | $ 0.03 | $ 0.18 | $ 0.24 | $ 0.22 | $ 0.41 |



Liquidity and Capital Resources

*Comparison of Fiscal 2004 to 2003*

Cash and cash equivalents and investments were $76.3 million and $67.4 million at December 31, 2004 and 2003, respectively, an increase of $8.9 million.

Cash provided by operating activities was $17.9 million in 2004 compared to $11.0 million in 2003. The increase in 2004 compared to 2003 was primarily attributable to improved profitability in our business. Non-cash charges declined in 2004, as 2003 non-cash charges included the establishment of a valuation allowance against deferred income taxes. Receivables increased primarily due to higher sales volumes and to a lesser extent, a result of our days sales outstanding increasing to 62 days as of December 31, 2004, compared to 60 days as of December 31, 2003. The cash provided by operating activities for 2003 was primarily due to our receipt of $12.0 million in tax refunds, which resulted from the carryback of net operating losses, and partially offset by $3.7 million of severance and facility closure payments related to the 2002 restructuring.

Our working capital at December 31, 2004, increased by approximately $22.6 million from December 31, 2003. The increase is primarily due to the higher cash and investment balances attributable to cash generated from our business operations. Working capital was also positively impacted from an increase in deferred income taxes attributable to the reversal of a significant portion of the valuation allowance. Partially offsetting these increases were payments of cash dividends to our stockholders and capital expenditures.

In 2004, we spent $2.8 million in capital expenditures to support existing infrastructure. In 2003 we spent $2.8 million to support the existing infrastructure and the implementation of our global information system in our European operations, which went live in October 2003. We continue to closely manage our capital expenditures.

Cash dividends paid to our stockholders during 2004 were $6.3 million, compared with $4.2 million for 2003. We paid a dividend of $0.04 per share in the first and second quarters of 2004. After considering the significant improvement in our financial performance and the strength of our balance sheet and cash position, our Board of Directors increased the dividend to $0.08 per share in the third and fourth quarters of 2004. We paid a quarterly common stock dividend of $0.04 per share in 2003. In February 2005, we paid approximately $2.1 million related to a cash

dividend of $0.08 per share declared in January 2005.

In December 2004, we entered into a definitive agreement with Intermagnetics General Corporation ("IGC") and Polycold, a wholly owned subsidiary of IGC, to acquire all of the issued and outstanding stock of Polycold for $49.2 million in cash at closing and up to $3.3 million in transaction-related tax payments. The acquisition closed in February 2005. We used a portion of our existing cash and cash equivalents and investments to fund this acquisition. We currently expect the transaction-related tax payments to total approximately $0.5 million.

We manage our foreign exchange rate risk arising from intercompany foreign currency denominated transactions through the use of foreign currency forward contracts. The gains and losses on these transactions are not material.

We believe that our existing funds and anticipated cash flow from operations will satisfy our working capital and capital expenditure requirements for at least the next 12 months.

***Comparison of Fiscal 2003 to 2002***

Cash and cash equivalents and investments were $67.4 million and $63.3 million at December 31, 2003 and 2002, respectively, an increase of $4.1 million.

Cash provided by operating activities in 2003 was $11.0 million, compared with cash used in operating activities of $7.1 million in 2002. The cash provided by operating activities for 2003 was primarily due to our receipt of $12.0 million in tax refunds, resulting from the carryback of the 2002 net operating loss, and the impact of our net loss after adjusting for the non-cash charges, specifically $8.7 million for deferred income taxes and $5.9 million for depreciation and amortization. This increase was offset by an increase in accounts receivable of approximately $6.0 million due to the improvement in fourth quarter sales, by $3.7 million of severance and facility closure payments related to the 2002 restructuring activity, and by a $1.4 million payment to fund our pension plan.

Our working capital at December 31, 2003, declined by approximately $11.2 million from December 31, 2002. This decline is primarily attributable to the establishment of a valuation allowance against our deferred tax assets resulting in a net change of $8.7 million, the payment of cash dividends of $4.2 million, and capital expenditures of $2.8 million. These were offset by the increase in accounts receivable of approximately $6.0 million which resulted from the improvement in fourth quarter sales.



In 2003, we spent $2.8 million in capital expenditures to support the existing infrastructure and the implementation of our global information system in our European operations, which went live in October 2003. In 2002, we spent $5.5 million, principally for the implementation of our global information system in the U.S., which went live during July 2002.

Cash dividends paid to our stockholders during 2003 were $4.2 million, compared with $7.0 million for 2002. We paid a quarterly common stock dividend of $0.04 per share in 2003. After paying a quarterly dividend of $0.08 per share for the first three quarters of 2002, our Board of Directors reduced the quarterly dividend to $0.04 per share in October 2002, due to the continuing uncertain business environment and lack of visibility in the semiconductor capital equipment market.

**Contractual Obligations**

The following represents our contractual obligations that may impact our liquidity as of December 31, 2004:

| (in thousands) | Total | Less than 1 Year | 1 - 3 Years | 3 - 5 Years | More than 5 Years |
|---|---|---|---|---|---|
| Operating leases | $ 12,778 | $ 4,306 | $ 4,432 | $ 1,204 | $ 2,836 |
| Retirement costs | 9,729 | 3,326 | 3,800 | 600 | 2,003 |

| | | | | | |
|---|---|---|---|---|---|
| Purchase orders | 13,220 | 13,220 | -- | -- | -- |
| Total | $ 35,727 | $ 20,852 | $ 8,232 | $ 1,804 | $ 4,839 |

We lease facilities, vehicles and equipment under long-term operating leases. Retirement costs consist of $7.7 million associated with our defined benefit pension plan and $2.0 million for our Supplemental Key Executive Retirement Plan. The purchase orders are for manufacturing and non-manufacturing related goods and services. While the purchase orders are generally cancelable without penalty, certain vendor agreements provide for percentage-based cancellation fees or minimum restocking charges based on the nature of the product or service.

**Legal Proceedings**

We may be involved in various legal proceedings in the normal course of business. We are not a party to any proceedings that involve amounts that would have a material effect on our financial position or results of operations if such proceedings were resolved unfavorably.

**Recent Accounting Pronouncements**

In March 2004, the Financial Accounting Standards Board ("FASB") approved the consensus reached on the Emerging Issues Task Force ("EITF") Issue No. 03-01, "The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments." EITF 03-01 provides guidance on determining when an investment is considered impaired, whether that impairment is other than temporary, and the measurement of an impairment loss. EITF 03-01 also provides new disclosure requirements for other-than-temporary impairments on debt and equity investments. In September 2004, the FASB delayed until further notice the effective date of the measurement and recognition guidance contained in EITF 03-01. The disclosure requirements of EITF 03-01 are effective for annual financial statements for fiscal years ending after December 15, 2003. The adoption of EITF 03-01 did not have a material impact on our financial position or results of operations.

In October 2004, the FASB approved the consensus reached on EITF No. 04-10, "Applying Paragraph 19 of FASB Statement No. 131, "Disclosures about Segments of an Enterprise and Related Information," in Determining Whether to Aggregate Operating Segments That Do Not Meet the Quantitative Thresholds." EITF 04-10 provides guidance on evaluating the aggregation criteria when determining whether operating segments that do not meet the quantitative thresholds may be aggregated in accordance with paragraph 19 of SFAS 131. The adoption of EITF 04-10 is not expected to have a material impact on our financial position or results of operations.

In November 2004, the FASB issued SFAS No. 151, "Inventory Costs, An Amendment of ARB No. 43, Chapter 4." This Statement amends ARB No. 43, Chapter 4, to clarify that abnormal amounts of idle facility, freight, handling costs, and wasted materials (spoilage) should be recognized as current-period charges. In addition, this Statement requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. This Statement is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. Earlier application is permitted for inventory costs incurred during fiscal years beginning after November 23, 2004. The provisions of Statement 151 should be applied prospectively. We are still evaluating the impact of SFAS No. 151; however, we do not believe it will have a material impact on our financial position or results of operations.



In December 2004, the FASB issued SFAS No. 123 (revised 2004), "Share-Based Payment." SFAS No. 123 revised eliminates the alternative to use APB Opinion No. 25's intrinsic value method of accounting that was provided in SFAS No. 123 as originally issued. Under Opinion 25, issuing stock options to employees generally resulted in recognition of no compensation cost. SFAS No. 123 revised requires companies to recognize the cost of employee

services received in exchange for equity instruments, based on the grant-date fair value of those instruments (with limited exceptions). SFAS No. 123 revised is effective for public companies for all employee awards of share-based payment granted, modified, or settled in any interim or annual period beginning after June 15, 2005. Companies may choose from one of three methods when transitioning to the new standard, which may include restatement of prior annual and interim periods or no restatement of interim periods prior to the effective date. We will adopt the standard as of the effective date and are in the process of evaluating the impact of this standard on our financial statements.

In December 2004, the FASB issued two FASB Staff Positions (FSP) that provide accounting guidance on how companies should account for the effects of the American Jobs Creation Act of 2004 that was signed into law on October 22, 2004. FSP FAS 109-1, "Application of FASB Statement No. 109, "Accounting for Income Taxes," to the Tax Deduction on Qualified Production Activities Provided by the American Jobs Creation Act of 2004," states that the manufacturers' deduction provided for under this legislation should be accounted for as a special deduction instead of a tax rate change. FSP FAS 109-2, "Accounting and Disclosure Guidance for the Foreign Earnings Repatriation Provision within the American Jobs Creation Act of 2004," allows a company additional time to evaluate the effects of the legislation on any plan for reinvestment or repatriation of foreign earnings for purposes of applying SFAS No. 109, "Accounting for Income Taxes." These FSPs may affect how a company accounts for deferred income taxes. These FSPs are effective December 21, 2004. We are currently evaluating the impact from these FSPs on our results of operations and financial position.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

### Foreign Currency Exchange Rate Risk

A portion of our business is conducted outside the United States through our foreign subsidiaries. Our foreign subsidiaries maintain their accounting records in their local currencies. Consequently, fluctuations in exchange rates affect the period-to-period comparability of results. To reduce the risks associated with foreign currency rate fluctuations, we have entered into forward exchange contracts on a continuing basis to offset the currency exposures. The gains and losses on these transactions partially offset the unrealized and realized foreign exchange gains and losses of the underlying exposures. The net gains and losses were immaterial for the years presented and were included in cost of sales. We plan to continue to use forward exchange contracts to mitigate the impact of exchange rate fluctuations. The notional amount of our outstanding foreign currency contracts at December 31, 2004 and 2003, was $7.1 million and $6.7 million, respectively. The potential fair value loss for a hypothetical 10% adverse change in forward currency exchange rates at both December 31, 2004 and 2003, would be $0.7 million, which would be essentially offset by corresponding gains related to underlying assets. The potential loss was estimated calculating the fair value of the forward exchange contracts at December 31, 2004 and 2003, and comparing that with the value calculated using the hypothetical forward currency exchange rates.

### Credit Risk

We are exposed to concentration of credit risk in cash and cash equivalents, investments, trade receivables, and short-term foreign exchange forward contracts. We place our cash and cash equivalents with our primary bank, a major financial institution with a high-quality credit rating. Our investments consist of money market funds, municipal and other tax-free bonds, or investment-grade securities. We enter into short-term foreign currency exchange contracts with our primary bank.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY FINANCIAL DATA.

The Financial Statements appear in Item 15 of this report.

## ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND

**FINANCIAL DISCLOSURE.**

None.

**ITEM 9A. CONTROLS AND PROCEDURES.**

**Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures**

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the Exchange Act). Based on this evaluation, our principal



executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

**Management's Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control - Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2004.

Our management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2004, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

**ITEM 9B. OTHER INFORMATION.**

None.



PART III

**ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.**

Officers are elected annually by the Board and serve at the discretion of the Board.

Set forth below is information regarding our current executive officers:

| Name and Title | Age | Business Experience |
|---|---|---|
| | 52 | |

| | | |
|---|---|---|
| James Gentilcore<br>President and Chief Executive Officer | | Mr. Gentilcore joined us as our Executive Vice President and Chief Operating Officer in December 2002. Prior to joining Helix, Mr. Gentilcore spent six years with Advanced Energy Industries, Inc., a manufacturer of integrated subsystems for the semiconductor industry, most recently as Chief Operating Officer. From 1990 to 1996, Mr. Gentilcore served as Corporate Vice President of Marketing at MKS Instruments Inc., a manufacturer of process instrumentation and subsystems for the semiconductor industry. Effective January 1, 2005, Mr. Gentilcore was appointed President and Chief Executive Officer. |
| Paul Kawa<br>Interim Chief Financial Officer | 42 | Mr. Kawa joined us as our Corporate Controller in August 2004. From November 2000 to August 2004, Mr. Kawa served first as Director, U.S. Accounting Operations, and most recently as Director, Corporate Accounting, of BearingPoint, Inc., a large international business and technology consulting firm. From 1998 through 2000, Mr. Kawa held finance positions with Amtrol, Inc., a manufacturer and distributor of water systems and plumbing and heating products, and refrigerant gas containers, including Vice President, Finance and Controller, North America; and Director, Financial Planning and Reporting. Mr. Kawa began his career with Ernst & Young where he spent approximately 7 years. Effective February 28, 2005, Mr. Kawa was appointed Interim Chief Financial Officer. |
| Robert E. Anastasi<br>Executive Vice President | 58 | Mr. Anastasi has served as Executive Vice President since February 2001. Prior to that he served as a Senior Vice President from July 1997 until February 2001 and as a Vice President from June 1991 to July 1997. |
| Mark E. Jalbert<br>Senior Vice President | 52 | Mr. Jalbert was elected as Senior Vice President in December 2002. Prior to that he served as Senior Vice President of Global Customer Operations from September 2001 until December 2002, Vice President of Sales from 1998 to September 2001, Director of Sales from 1997 to 1998, and Regional Sales Manager from 1988 to 1997. |

Additional information required by this item is incorporated herein by reference to the registrant's Definitive Proxy Statement with respect to the 2005 Annual Meeting of Stockholders to be filed with the SEC no later than 120 days after the close of the Company's fiscal year, pursuant to Regulation 14A.

We have adopted a Code of Business Conduct that applies to all our employees and directors. In addition, we have adopted a Code of Ethics for Senior Financial Officers which imposes additional standards on our principal executive officer and all senior financial officers. The Code of Business Conduct and the Code of Ethics for Senior Financial Officers are available through our website at www.helixtechnology.com. Information contained on the website is not part of this report. If we grant any waiver of either code with respect to the conduct of executive officers or directors, we will publicly disclose such waivers as required by applicable law.

**ITEM 11. EXECUTIVE COMPENSATION.**

Information required by this item is incorporated herein by reference to the registrant's Definitive Proxy Statement with respect to the 2005 Annual Meeting of Stockholders to be filed with the SEC no later than 120 days after the close of the Company's fiscal year, pursuant to Regulation 14A.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.**

Information required by this item is incorporated herein by reference to the registrant's Definitive Proxy Statement with respect to the 2005 Annual Meeting of Stockholders to be filed with the SEC no later than 120 days after the close of the Company's fiscal year, pursuant to Regulation 14A.



ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

Information required by this item is incorporated herein by reference to the registrant's Definitive Proxy Statement with respect to the 2005 Annual Meeting of Stockholders to be filed with the SEC no later than 120 days after the close of the Company's fiscal year, pursuant to Regulation 14A.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.**

Information required by this item is incorporated herein by reference to the registrant's Definitive Proxy Statement with respect to the 2005 Annual Meeting of Stockholders to be filed with the SEC no later than 120 days after the close of the Company's fiscal year, pursuant to Regulation 14A.



PART IV

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.**

***a. The following documents are filed as part of this report:***


| | Page |
|---|---|
| 1. Financial Statements | |
| Report of Independent Registered Public Accounting Firm | 26 |
| Consolidated Balance Sheets as of December 31, 2004 and 2003 | 28 |
| Consolidated Statements of Operations for the years ended December 31, 2004, 2003, and 2002 | 29 |
| Consolidated Statements of Stockholders' Equity for the years ended December 31, 2004, 2003, and 2002 | 30 |
| Consolidated Statements of Cash Flows for the years ended December 31, 2004, 2003, and 2002 | 31 |
| Notes to Consolidated Financial Statements | 32 |

2. Financial Statement Schedule for the years ended
December 31, 2004, 2003, and 2002 51
3. Exhibits

The Exhibits filed as part of this report are listed on the Exhibit Index immediately preceding the exhibits, which Exhibit Index is incorporated herein by reference.



SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, this 16th day of March 2005.

Helix Technology Corporation
(Registrant)

By: /s/James Gentilcore
James Gentilcore
*President and Chief Executive Officer*

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant on this 16th day of March 2005, in the capacities indicated.

| Signatures | Titles |
|---|---|
| /s/ James Gentilcore | |
| James Gentilcore | President and Chief Executive Officer<br>(Principal Executive Officer) |
| /s/ Paul Kawa | |
| Paul Kawa | Interim Chief Financial Officer<br>(Principal Financial and Accounting Officer) |

/s/ Gideon Argov

Gideon Argov — Director

/s/ Frank Gabron

Frank Gabron — Director

/s/ James Gentilcore

James Gentilcore — Director

/s/ Robert H. Hayes

Robert H. Hayes — Director

/s/ Robert J. Lepofsky

Robert J. Lepofsky — Director and Chairman of the Board

/s/ Marvin G. Schorr

Marvin G. Schorr — Director

/s/ Alfred Woollacott III

Alfred Woollacott III — Director

/s/ Mark S. Wrighton

Mark S. Wrighton Director



Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Helix Technology Corporation:

We have completed an integrated audit of Helix Technology Corporation's 2004 consolidated financial statements and of its internal control over financial reporting as of December 31, 2004, and audits of its 2003 and 2002 consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

Consolidated financial statements and financial statement schedule

In our opinion, the consolidated financial statements listed in the index appearing under Item 15(a)(1) present fairly, in all material respects, the financial position of Helix Technology Corporation and its subsidiaries at December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Internal control over financial reporting

Also, in our opinion, management's assessment, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A, that the Company maintained effective internal control over financial reporting as of December 31, 2004, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express

opinions on management's assessment and on the effectiveness of the Company's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.



Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP

Boston, Massachusetts
March 16, 2005



HELIX TECHNOLOGY CORPORATION
CONSOLIDATED BALANCE SHEETS

| (in thousands except share data) | December 31, 2004 | 2003 |
|---|---|---|
| ASSETS | | |
| Current: | | |
| | $ 6,462 | $ 12,334 |

| | | |
|---|---|---|
| Cash and cash equivalents | | |
| Investments | 69,874 | 55,053 |
| Receivables-net of allowances of $305 in 2004 and $438 in 2003 | 24,100 | 21,033 |
| Inventories | 21,595 | 22,032 |
| Income tax receivable | 2,014 | -- |
| Deferred income taxes | 7,717 | -- |
| Other current assets | 2,313 | 1,934 |
| Total current assets | 134,075 | 112,386 |
| Property, plant, and equipment | 68,003 | 64,908 |
| Less: accumulated depreciation | (49,063 ) | (44,085 ) |
| Net property, plant, and equipment | 18,940 | 20,823 |
| Other assets | 16,549 | 12,781 |
| TOTAL ASSETS | $ 169,564 | $ 145,990 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current: | | |
| Accounts payable | $ 5,951 | $ 8,918 |
| Payroll and compensation | 1,690 | 1,628 |
| Retirement costs | 3,326 | 1,758 |
| Income taxes | 4,288 | 4,383 |
| Other accrued liabilities | 2,662 | 2,145 |
| Total current liabilities | 17,917 | 18,832 |
| Retirement costs | 6,403 | 8,352 |
| Deferred income taxes | 1,103 | -- |
| Total liabilities | 25,423 | 27,184 |
| Commitments and contingencies (Note | | |

| | | |
|---|---|---|
| E) | | |
| Stockholders' equity: | | |
| Preferred stock, $1 par value; authorized 2,000,000 shares; | | |
| issued and outstanding: none | -- | -- |
| Common stock, $1 par value; authorized 60,000,000 shares; | | |
| issued 26,114,229 in 2004 and 26,103,204 in 2003; | | |
| outstanding 26,114,229 in 2004 and 26,099,364 in 2003 | 26,114 | 26,103 |
| Capital in excess of par value | 76,413 | 76,405 |
| Treasury stock, at cost, $1 par value; 0 shares in 2004 and | | |
| 3,840 shares in 2003 | -- | |