HELIX TECHNOLOGY CORP
Form 10-K
February 21, 2002

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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

FOR THE YEAR ENDED DECEMBER 31, 2001,
OR

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

FOR THE TRANSITION PERIOD FROM _____ TO _____

COMMISSION FILE NUMBER 0-6866

HELIX TECHNOLOGY CORPORATION

(Exact name of registrant as specified in its charter)

DELAWARE	04-2423640
(State of incorporation)	(IRS Employer Identification No.)
MANSFIELD CORPORATE CENTER, NINE HAMPSHIRE STREET, MANSFIELD, MASSACHUSETTS	02048-9171
(Address of principal executive offices)	(zip code)

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

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 checkmark 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 / /

Indicate by checkmark 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/

The aggregate market value of the registrant's common stock held by nonaffiliates of the registrant as of January 31, 2002, (computed by reference to the quoted selling prices of such stock in the over-the-counter market), was $453,120,376.

The number of shares outstanding of the registrant's Common Stock, $1 Par Value, as of January 31, 2002, was 22,611,204.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Annual Proxy Statement for the registrant's 2002 Annual Meeting of Stockholders to be filed with the SEC in February 2002 are incorporated by reference into Part III, Items 10-12.

PART I

ITEM 1. BUSINESS

Helix 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, Matsushita, Novellus, Varian Semiconductor and Veeco, as well as semiconductor manufacturers such as Agere, Atmel, Fujitsu, Infineon, Intel, Motorola, NEC, Samsung, STMicroelectronics and Texas Instruments. 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 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.

INDUSTRY OVERVIEW

The semiconductor industry in recent years 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, the incorporation of semiconductors into 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 five 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 35% of our net sales have 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 demonstrates our leading position in the industry.

SUPERIOR GLOBAL CUSTOMER SERVICE AND 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. Our GUTS rapid response offering and

GOLDLink support technologies are 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, if necessary, dispatch to a customer a technician or part 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 twelve service and support offices around the world, and as of December 31, 2001, 104, or 17%, of our employees were dedicated to our global customer service and 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 are all 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, 2001, we had 215 patents issued and 82 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 have represented the majority of our consolidated net sales. In 2001, the average selling price for our vacuum pumping systems was approximately $20,000.

VACUUM MEASUREMENT COMPONENTS AND SYSTEMS

Our Granville-Phillips STABIL-ION and CONVECTRON 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 and CONVECTRON 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 have represented between 16% and 19% of our net sales. The average selling price for our vacuum measurement systems is approximately $500.

GLOBAL SUPPORT SERVICES

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.

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 Helix employee who has the resources to diagnose a customer problem and initiate corrective action, including dispatching to the customer a technician or part in less than one hour.

While our GUTS response system continues to be a leader in reactive customer support, the industry is moving to Internet-based proactive remote e-diagnostics to further enhance production efficiency and throughput and leverage industry-wide core competencies. We are well positioned to provide 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 the networks connecting the tools and our support operations. Using our GOLDLink capability, we:

- transmit tool performance data via the Internet directly from the fabrication facility to our GOLDLink customer support center in Massachusetts;

- monitor and analyze the tool performance data, comparing the actual performance parameters with the optimum "expected" performance parameters (developed by our vacuum experts in conjunction with our customers and third-party suppliers); and

- provide our customers with solutions to any vacuum system problems.

Some of our GOLDLink customers have chosen to also monitor the performance data themselves. 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. We

have over 25 customer sites currently connected to the GOLDLink network, including customers in the United States, Europe, Japan and Korea. The GOLDLink support network has already logged over 350,000 connected hours of customer data.

In each of the past three years, we received approximately 30% to 40% of our net sales from our global support services, including GOLDLink and, through the GUTS rapid response system, 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 53%, 72% and 63% of our net sales for 2001, 2000 and 1999, 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, 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
Agere	Applied Materials	Unaxis
Atmel	Axcelis	Veeco
Fujitsu	Matsushita	
Infineon	Novellus	FLAT PANEL DISPLAYS
Intel	Varian Semiconductor	AKT
Motorola	Veeco	Philips
NEC		
Samsung		ANALYTICAL INSTRUMENTS
STMicroelectronics		Agilent
Texas Instruments		Riber

Our one reportable segment is cryogenic and vacuum equipment. Our largest customer is Applied Materials, the world's largest manufacturer of semiconductor capital equipment, representing 21%, 40% and 29%, of our net sales for 2001, 2000 and 1999, respectively. Our 10 largest customers accounted for 37%, 60%, and 50%, of our net sales for 2001, 2000, and 1999, 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 service personnel are located at our headquarters in Mansfield, Massachusetts, and in regional offices in Longmont, Colorado; Santa Clara, California; Austin, Texas; Tempe, Arizona; Amsterdam, the Netherlands; Darmstadt, Germany; Orsay, France; Livingston, Scotland; Tokyo, Japan and Hsinchu, Taiwan. We also have distributors and representatives in other major markets.

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 trade shows and conferences and presentations at technology seminars to promote awareness of us and our 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 one of our facilities 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 to 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 $16.1 million in 2001 and in 2000 and $9.9 million in 1999 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, projects for 300 millimeter products, and enhancements of our core products and GOLDLink support. We perform our research and product development activities at our headquarters facility 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 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, 2001, we had 597 permanent and 26 temporary employees worldwide, of which 520 were employed in North America, 62 in Asia and 41 in Europe. As of December 31, 2001, 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, research and development and sales 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, 2001, we had 99 patents in the United States and 116 patents in other countries, as well as 82 patent applications (18 in the United States and 64 in other countries) on file with various patent agencies worldwide. These patents expire at various years through 2020. No patents that we consider significant expire during the next five years.

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 approximately $7.0 million backlog of orders that we believed to be firm at December 31, 2001, compared with $26.6 million at December 31, 2000. We expect to recognize revenue from essentially all of the December 31, 2001 backlog during 2002.

ITEM 1A. EXECUTIVE OFFICERS OF THE REGISTRANT

Set forth below is information regarding our current executive officers who do not serve as our directors.

Mr. Robert E. Anastasi is 55 and 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.

Mr. Jay Zager is 52 and joined us as our Senior Vice President and Chief Financial Officer in January 2002. Prior to that Mr. Zager served as Executive Vice President and Chief Financial Officer of Inrange Technologies Corporation from May 2000 to October 2001. He served as a vice president in the Enterprise Solutions Group of Compaq Computer Corporation from 1998 through 1999. From 1985 through 1998, Mr. Zager held several senior management positions with Digital Equipment Corporation, including Vice President and Chief Financial Officer, Worldwide Engineering and Research; Vice President, Business Development; and Group Controller of the U.S. Sales and Service division.

ITEM 2. PROPERTIES

We occupy approximately 345,300 square feet worldwide, as described in the table below.

LOCATION	SIZE (SQ. FT.)	LEASE EXPIRES	FUNCTIONS
Massachusetts....	155,000	2006(1)	Corporate headquarters, engineering, manufacturing,
	63,000	2004	sales and marketing, customer support, repair center, and administration
Colorado.....	60,000	2015	Engineering, manufacturing, and sales and marketing
California.....	11,000	2003	Sales office, customer support, and repair ce
Texas.....	12,000	2005	Sales office and customer support
Arizona.....	3,000	2006	Sales office and customer support
Scotland.....	5,300	2020	Sales office and customer support
Germany.....	2,500	2003	Sales office and customer support
France.....	6,400	2003	Sales office, customer support, and repair ce
Japan.....	9,900	2002	Sales office and customer support
	9,700	2002	Repair center
Taiwan.....	7,500	2003	Sales office, customer support, and repair ce

(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 are a defendant in an action brought in 1998 in the Massachusetts Superior Court by Raytheon Company which alleges that between 1992 and 1994 we sold Raytheon defective components used in missile guidance systems manufactured by Raytheon. We have not been in the business of selling these components since 1994. We have denied all claims that Raytheon has asserted and succeeded in having certain claims dismissed, although these dismissals are potentially appealable at the conclusion of the trial stage of the case. The action is in the discovery and motion phase and no trial date has been set. We believe that we have meritorious defenses and that, although the ultimate outcome of the matters cannot be predicted with certainty, the disposition of the matters

should not have a material effect on our financial position.

We are also involved in various legal proceedings in the normal course of business. In our opinion, these proceedings involve amounts that would not 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, 2001, no matters were submitted to a vote of security holders through the solicitation of proxies or otherwise.

PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON STOCK AND RELATED SECURITY HOLDER MATTERS

Our common stock is traded on the Nasdaq Stock Market under the symbol HELX. At December 31, 2001, there were 22,611,204 shares of common stock outstanding and approximately 612 common stockholders of record.

PRICE RANGE OF COMMON STOCK AND CASH DIVIDEND PER COMMON SHARE

The price range and cash dividend per common share of our common stock by quarter are:

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	F QU
2001				
High	$32.91	$33.44	$30.55	$
Low	$21.13	$20.38	$14.75	$
Cash dividends per share	$ 0.12	$ 0.12	$ 0.12	$
2000				
High	$80.19	$67.50	$44.00	$
Low	$43.38	$28.63	$27.25	$
Cash dividends per share	$ 0.12	$ 0.12	$ 0.12	$

On February 20, 2002, the Board of Directors declared a quarterly cash dividend of $0.08 per common share payable on March 12, 2002, to common stockholders of record at the close of business on March 4, 2002.

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. In connection with the acquisition of Granville-Phillips Company in 1998, accounted for as a pooling of interests, all prior-period financial data has been restated to include the impact of the combination.

	December 31,				
(IN THOUSANDS EXCEPT PER SHARE DATA)	2001	2000	1999	1998	1997
Net sales	$ 112,994	$ 253,085	$ 139,389	$ 95,345	$ 157,076
Net (loss) income(1)	$ (5,940)	$ 45,870	$ 15,864	$ (1,920)	$ 25,544
Basic net (loss) income per share	$ (0.26)	$ 2.04	$ 0.71	$ (0.09)	$ 1.15
Diluted net (loss) income per share	$ (0.26)	$ 2.02	$ 0.70	$ (0.09)	$ 1.14
Cash dividends per share(2)	$ 0.44	$ 0.48	$ 0.48	$ 0.75	$ 0.74
Total assets	$ 113,580	$ 141,968	$ 93,655	$ 75,652	$ 96,219
Basic shares	22,565	22,498	22,336	22,262	22,151
Diluted shares	22,565	22,762	22,623	22,262	22,353

(1) NET LOSS FOR THE YEAR ENDED DECEMBER 31, 2001 REFLECTS A RESTRUCTURING CHARGE OF $1,047,000 RELATED TO WORK FORCE REDUCTIONS. NET INCOME FOR THE YEAR ENDED DECEMBER 31, 1999, REFLECTS THE GAIN ON SALE OF OUR COLORADO FACILITY OF $1,397,000. NET LOSS FOR THE YEAR ENDED DECEMBER 31, 1998, REFLECTS MERGER AND OTHER SPECIAL CHARGES OF $3,546,000 RELATED TO THE ACQUISITION OF GRANVILLE-PHILLIPS COMPANY AND RESTRUCTURING AND OTHER SPECIAL CHARGES OF $2,500,000 RELATED TO WORK FORCE REDUCTIONS, EXIT COSTS FOR A LEASED FACILITY, AND IMPAIRMENT OF CERTAIN ASSETS. SEE NOTES H AND I OF "NOTES TO CONSOLIDATED FINANCIAL STATEMENTS."

(2) CASH DIVIDENDS PER SHARE DECLARED IN PERIODS PRIOR TO THE ACQUISITION OF GRANVILLE-PHILLIPS COMPANY ARE BASED ON SHARES OUTSTANDING AT THAT TIME AND THEREFORE DO NOT REFLECT THE 2,383,000 SHARES ISSUED AS PART OF THE ACQUISITION.

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 "IMPORTANT FACTORS THAT MAY AFFECT FUTURE RESULTS" BELOW.

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, Matsushita, Novellus, Varian Semiconductor and Veeco, as well as semiconductor manufacturers such as Agere, Atmel, Fujitsu, Infineon, Intel, Motorola, NEC, Samsung, STMicroelectronics and Texas Instruments. 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 unique 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.

Net sales from sales of vacuum components and systems is recognized upon shipment provided title and risk of loss have been transferred to the customer, there is evidence of an arrangement, fees are fixed or determinable, and collection is reasonably assured. Net sales from global support services is comprised primarily of sales and installation of spare parts, retrofits and upgrades as well as other support services provided through our GUTS customer response system and GOLDLink support system. Global support services, including GOLDLink, are provided to some of our major customers under the terms of master support agreements, which typically have terms of between one and three years. These services are provided to some of our other customers on an individual or fee-for-service basis. Net sales from global support services is recognized as performed or ratably over the period of the related agreements.

Cost of sales consist primarily of labor, materials and overhead relating to the manufacturing of our vacuum components and systems, as well as labor and material costs associated with our global support services.

We own 50% of a joint venture, ULVAC Cryogenics, Inc., or UCI, which manufactures and sells cryogenic vacuum pumps in Japan, principally to ULVAC Corporation. We account for the joint venture using the equity method of accounting, and we also receive royalties from the joint venture under the terms of a license and technology agreement. The royalties we receive from UCI, as well as our equity in the income and losses of UCI, are both included in our financial statements under joint venture income.

RESULTS OF OPERATIONS

FISCAL YEAR ENDED DECEMBER 31, 2001 COMPARED TO THE FISCAL YEAR ENDED DECEMBER 31, 2000

In 2001, a slowdown in the global market for semiconductor capital equipment impacted us after we had experienced a period of significant growth in 1999 and 2000. Our net sales for 2001 were $113.0 million compared with net sales for 2000 of $253.1 million, a decrease of 55.4%.

Cost of sales for 2001 was $75.3 million compared with $132.0 million for 2001, a decrease of 43.0%. The gross margin for 2001 was 33.4% compared with 47.9% for 2000. The reduction in gross margin was primarily attributable to decreased production volume as overhead costs were spread over a smaller sales base.

Research and development expenses were $16.1 million for both 2001 and 2000, or 14.2% and 6.4% of net sales in 2001 and 2000, respectively. Despite the significant near-term reduction in product demand, we continued in 2001 to focus on developing technologies to support a new generation of products for 300 millimeter capable production tools, to expand our GOLDLink support service capability and to improve our core component product lines.

Total selling, general and administrative expenses decreased to $35.1 million in 2001 compared with $42.4 million in 2000. Our spending declined due to cost containment measures, including reductions in senior management compensation expenses, initiated during 2001.

During the third quarter of 2001, we implemented and completed a restructuring program in response to the continued slowdown in the semiconductor capital equipment industry that resulted in the reduction of approximately 110 permanent employees. As a result, we recorded a restructuring charge of approximately $1.0 million primarily related to severance payments and fringe benefit costs.

Royalty and equity income from our joint venture in Japan decreased by $1.7 million to $2.4 million in 2001 from $4.1 million in 2000 due to the decline in the Japanese semiconductor capital equipment market in 2001.

Interest and other income for 2001 was $0.9 million, compared with $1.2 million for 2000, reflecting lower interest rates and lower average cash, cash equivalent and investment balances in 2001.

We had a pretax loss of $11.2 million in 2001, resulting in a tax benefit of $5.3 million, compared with pretax income of $68.0 million and a tax provision of $22.1 million for 2000. The effective tax rates for 2001 and 2000 were 47.0% and 32.5%, respectively. 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 reduced our tax rate on 2000 pretax income and increased our tax rate on 2001 pretax losses.

FISCAL YEAR ENDED DECEMBER 31, 2000 COMPARED TO THE FISCAL YEAR ENDED DECEMBER 31, 1999

Throughout 2000, we continued to benefit from the significant increase in demand for semiconductor capital equipment. Net sales for 2000 were $253.1 million, compared with $139.4 million in 1999, an increase of $113.7 million, or 81.6%.

Cost of sales for 2000 was $132.0 million compared with $77.5 million for 1999, an increase of 70.3%. Total gross margin for 2000 was 47.9%, compared with 44.4% for the prior year. The improvement in gross

margin was primarily attributable to increased sales volume, offset by costs relating to a new manufacturing and engineering center in Colorado, a new customer support center in Taiwan and expansion of our Japanese customer support center.

Research and development expenses for 2000 were $16.1 million, or 6.4% of net sales, compared with $9.9 million, or 7.1% of net sales, for 1999. We increased our spending on projects for 300 millimeter products, GOLDLink global support and ongoing improvements to our core products.

Selling, general and administrative expenses increased in 2000 to $42.4 million from $32.0 million in the prior year. The increase in spending was primarily attributable to expenditures for increased sales activities worldwide, our locations in Colorado, Taiwan, and Japan mentioned above, and GOLDLink global support.

Royalty and equity income from our joint venture in Japan increased by $2.7 million to $4.1 million in 2000 from $1.4 million in 1999, due to improvements in the Japanese semiconductor capital equipment market in 2000.

Interest and other income for 2000 was $1.2 million, compared with $0.9 million for 1999, reflecting higher interest rates and higher average cash, cash equivalent and investment balances during 2000.

We recorded an income tax provision of $22.1 million for 2000, compared with $7.8 million for the previous year. The 2000 and 1999 effective tax rates of 32.5% and 33.0%, respectively, were less than the federal statutory rate of 35% because we benefited from research and development and other tax credits.

QUARTERLY FINANCIAL RESULTS

The following table presents selected unaudited financial information for the eight quarters in the period ended December 31, 2001. 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					
	MARCH 31, 2000	JUNE 30, 2000	SEPT. 29, 2000	DEC. 31, 2000	MARCH 30, 2001	JUNE 200
	(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS					
Net sales	$50,050	$58,525	$69,913	$74,597	$48,641	$26,6
Cost of sales	25,948	30,858	36,495	38,649	28,507	18,4
Research and development	3,275	3,934	4,182	4,740	4,233	4,2
Selling, general and administrative	9,788	10,457	11,182	10,994	9,905	9,4
Restructuring charge	--	--	--	--	--	
Operating income (loss)	11,039	13,276	18,054	20,214	5,996	(5,5
Net income (loss)	7,958	9,764	13,478	14,670	4,980	(3,2
Basic net income (loss) per share	0.36	0.43	0.60	0.65	0.22	(0.
Diluted net income (loss) per share	0.35	0.43	0.59	0.65	0.22	(0.

LIQUIDITY AND CAPITAL RESOURCES

Net cash provided by operating activities was $9.2 million in 2001 compared with $31.9 million in 2000, primarily due to our net loss in 2001, partially offset by a reduction in working capital.

In 2001, we spent $15.9 million on capital expenditures, principally for our new Japanese service center, implementation of our global information system and enhancements to the GOLDLink support system. In 2000, capital expenditures were $12.4 million, principally due to the consolidation of our Colorado operations into a new 60,000 square foot leased facility, the opening of our GOLDLink global support operations center in Massachusetts, the opening of a sales and service location in Taiwan, and the first phase of our global information system. We expect our capital expenditures in 2002 will be significantly lower than 2001.

Cash dividends paid to our stockholders during 2001 were $9.9 million, compared with $10.8 million for 2000. We paid a quarterly common stock dividend of $0.12 per share in 2000 and for the first three quarters of 2001. In October 2001, after considering the current uncertain business environment in the semiconductor equipment industry, our board of directors reduced the quarterly dividend to $0.08 per share, resulting in aggregate quarterly cash savings of approximately $1.0 million.

We have an agreement with a bank to sell specific Japanese Yen-"denominated" receivables, subject to recourse provisions. During 2001, approximately $1.6 million of receivables were sold under these arrangements. As of December 31, 2001 and 2000, approximately $0.5 million and $1.0 million, respectively, of these receivables sold to the bank remained outstanding. We do not believe we are materially at risk for any losses as a result of this agreement.

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 have a three year revolving credit agreement with Fleet National Bank entered into in July 2000 that permits us to borrow up to $25.0 million, subject to compliance with certain covenants. Loans under the credit agreement bear interest for each calendar quarter at an annual rate equal to, at our option, either the applicable LIBOR rate or the lender's base rate, plus a varying margin. We have no borrowings outstanding under the credit agreement. As of December 31, 2001, we are not in compliance with one of the financial covenants, relating to profitability, and therefore cannot access the line of credit at this time. As a result, we are currently in negotiations with the bank to amend the agreement.

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.

LEGAL PROCEEDINGS

We are a defendant in an action brought in 1998 in the Massachusetts Superior Court by Raytheon Company which alleges that between 1992 and 1994 we sold Raytheon defective components used in missile guidance systems manufactured by Raytheon. We have not been in the business of selling these components since 1994. We have denied all claims that Raytheon has asserted and succeeded in having certain claims dismissed, although these dismissals are potentially appealable at the conclusion of the trial stage of the case. The action is in the discovery and motion phase and no trial date has been set. We believe that we have meritorious defenses and that, although the ultimate outcome of the matters cannot be predicted with certainty, the disposition of the matters should not have a material effect on our financial position.

We are also involved in various legal proceedings in the normal course of business. In our opinion, these proceedings involve amounts that would not have a material effect on our financial position or results of operations if such proceedings were resolved unfavorably.

RECENT ACCOUNTING PRONOUNCEMENTS

In July 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 141 (SFAS 141), "Business Combinations." SFAS 141 requires the purchase method of accounting for business combinations initiated after June 30, 2001 and eliminates the pooling of interests method.

In July 2001, the FASB issued Statement of Financial Accounting Standards No. 142 (SFAS 142), "Goodwill and Other Intangible Assets," which became effective for us on January 1, 2002. SFAS 142 requires, among other things, the discontinuance of goodwill amortization and includes provisions for the reclassification of certain existing recognized intangibles as goodwill, reassessment of the useful lives of existing recognized intangibles and reclassification of certain intangibles out of previously reported goodwill. The revised standards include transition rules and requirements for identification, valuation and recognition of a much broader list of intangibles as part of business combinations than prior practice, most of which will continue to be amortized.

In October 2001, the FASB issued Statement of Financial Accounting Standards No. 144 (SFAS 144), "Accounting for the Impairment or Disposal of Long-Lived Assets." The objectives of SFAS 144 are to address significant issues relating to the implementation of FASB Statement No. 121 (SFAS 121), "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," and to develop a single accounting model, based on the framework established in SFAS 121, for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired. SFAS 144 is effective for financial statements issued for fiscal years beginning after December 15, 2001 and, generally, its provisions are to be applied prospectively.

We believe that the adoption of these standards will not have a material impact on our consolidated financial statements.

IMPORTANT FACTORS THAT MAY AFFECT FUTURE RESULTS

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 Conditions 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," "believe," "seek," "estimate," and similar expressions.

The forward-looking statements include statements about:

- our strategic plans;
- the outlook for our business and industry;
- anticipated expenses;
- anticipated sources of future revenues; 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 that could cause our future results to differ materially from those expressed in any forward-looking statements made by or on behalf of us. Many such factors are beyond our ability to control or predict. Readers are accordingly cautioned not to place undue reliance on forward-looking statements. We disclaim any intent or obligation to update publicly any forward-looking statements, whether in response to new information, future events, or otherwise.

Our business depends in large part upon the capital expenditures of semiconductor manufacturers, which, in turn, depend on the current and

anticipated market demand for integrated circuits and products utilizing integrated circuits. The semiconductor industry is highly cyclical and has historically experienced periodic downturns, which generally have had a severe effect on the semiconductor industry's demand for capital equipment and have adversely affected our results of operations. We cannot assure you that developments in the semiconductor industry or the semiconductor equipment industry will occur at the rate or in the manner that we expect. In addition to the cyclical nature, risks, and uncertainties of the semiconductor industry, we face the following risks and uncertainties among others:

- dependence on a limited number of customers and concentration of sales to one or a few customers;

- reduction of potential customers due to industry consolidation and outsourcing of the manufacture of semiconductors;

- the need to continuously develop, manufacture, and gain customers' acceptance of new products and product enhancements;

- the need to achieve widespread market acceptance among our customers and others of our GOLDLink support initiative;

- our ability to continue to provide satisfactory levels of product services and maintenance and warranty support to our customers;

- our ability to compete successfully with current and future competitors in our industry;

- our ability to continue necessary capital investments during industry downturns and to anticipate or expand sales;

- dependence upon sole- and limited-source suppliers for certain components and subassemblies included in our products and systems;

- potential liability claims based on alleged defects in our products or errors in performing product-related services;

- economic downturns abroad affecting our sales to foreign markets;

- our ability to protect our proprietary technology without substantial costs and disruption to our core business strategy;

- our ability to attract and retain certain key personnel; and

- our ability to expand through acquisitions of complementary businesses and to integrate successfully any acquired companies.

As a result of the foregoing and other factors, we may experience material fluctuations in our future operating results on a quarterly or annual basis, which could materially affect our business, financial position, results of operations, and stock price. These risks and uncertainties are discussed in more detail in Exhibit 99.1 to this Annual Report on Form 10-K.

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, 2001, was $9.2 million. The potential fair value loss for a hypothetical 10% adverse change in forward currency exchange rates at December 31, 2001, would be $1.0 million. The potential loss was estimated calculating the fair value of the forward exchange contracts at December 31, 2001, 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 government agencies and 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 DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
AND SCHEDULES COVERED BY
THE REPORT OF INDEPENDENT ACCOUNTANTS

Schedules other than those listed above have been omitted, since they are either inapplicable or not required.

REPORT OF INDEPENDENT ACCOUNTANTS

To The Board of Directors and Stockholders

of Helix Technology Corporation:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Helix Technology Corporation and its subsidiaries at December 31, 2001 and 2000 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, 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 accompanying index 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 auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit 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.

PricewaterhouseCoopers LLP

Boston, Massachusetts
January 29, 2002

HELIX TECHNOLOGY CORPORATION
CONSOLIDATED BALANCE SHEETS

	DECEMBER 31,	
	2001	2000
	(IN THOUSANDS EXCEPT SHARE DATA)	
ASSETS		
Current:		
Cash and cash equivalents	$ 7,789	$ 15,435
Investments	9,271	16,654
Receivables--net of allowances of $400 in 2001 and $197 in 2000	11,997	40,243
Inventories	27,293	30,204
Income tax receivable	7,344	--
Deferred income taxes	5,707	6,444

Other current assets	2,577	2,208
Total Current Assets	71,978	111,188
Property, plant, and equipment	65,115	49,940
Less: accumulated depreciation	(35,614)	(31,115)
Net property, plant, and equipment	29,501	18,825
Other assets (Note E)	12,101	11,955
TOTAL ASSETS	$113,580	$141,968
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current:		
Accounts payable	$ 9,105	$ 17,993
Payroll and compensation	986	3,060
Retirement costs (Note G)	6,758	5,586
Income taxes	3,064	6,015
Other accrued liabilities	700	747
Total Current Liabilities	20,613	33,401
Commitments and contingencies (Note B)		
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 and outstanding: 22,611,204 in 2001 and 22,537,204 in 2000	22,611	22,537
Capital in excess of par value	13,878	12,263
Treasury stock, $1 par value; 3,840 shares in 2001 and 2000	(232)	(232)
Retained earnings	58,261	74,123
Accumulated other comprehensive loss	(1,551)	(124)
Total Stockholders' Equity	92,967	108,567
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$113,580	$141,968

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

HELIX TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS

	FOR THE YEARS ENDED DECEMBER 31,		
	2001	2000	1999
	(IN THOUSANDS EXCEPT PER SHARE DATA		
Net sales	$112,994	$253,085	$139,389
Costs and expenses:			

Cost of sales	75,275	131,950	77,487
Research and development	16,069	16,131	9,916
Selling, general and administrative	35,075	42,421	31,976
Restructuring charge (Note H)	1,047	--	--
	127,466	190,502	119,379
Operating (loss) income	(14,472)	62,583	20,010
Joint venture income (Note E)	2,398	4,132	1,415
Interest and other income	867	1,241	856
Gain on sale of building (Note I)	--	--	1,397
(Loss) income before taxes	(11,207)	67,956	23,678
Income tax (benefit) provision	(5,267)	22,086	7,814
Net (loss) income	$ (5,940)	$ 45,870	$ 15,864
Net (loss) income per share:			
Basic	$ (0.26)	$ 2.04	$ 0.71
Diluted	$ (0.26)	$ 2.02	$ 0.70
Number of shares used in per share calculations:			
Basic	22,565	22,498	22,336
Diluted	22,565	22,762	22,623

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

HELIX TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	COMMON STOCK					
	SHARES	PAR VALUE	CAPITAL IN EXCESS OF PAR	TREASURY STOCK	RETAINED EARNINGS	ACCUMULAT OTHER COMPREHENS INCOME (LO
				(IN THOUSANDS EXCEPT SHARE DATA)		
Balance, December 31, 1998	22,319,131	$22,319	$ 7,936	$ (438)	$33,910	$ (359
Comprehensive income, net of tax:						
Net income		--	--	--	15,864	--
Other comprehensive income:						
Foreign currency translation adjustments		--	--	--	--	1,467
Unrealized loss on available-for-sale investment		--	--	--	--	(40
Other comprehensive income		--	--	--	--	1,427

Comprehensive income.....						
Shares issued for stock options.....	56,500	57	746	--	--	--
Shares issued for employee savings plan.....		--	302	318	--	--
Income tax effect from exercise of stock options.....		--	330	--	--	--
Shares tendered for exercise of stock options.....		--	--	(78)	--	--
Cash dividends.....		--	--	--	(10,711)	--
Balance, December 31, 1999.....	22,375,631	22,376	9,314	(198)	39,063	1,068
Comprehensive income, net of tax:						
Net income.....		--	--	--	45,870	--
Other comprehensive loss:						
Foreign currency translation adjustments.....		--	--	--	--	(1,233
Unrealized gain on available-for-sale investment.....		--	--	--	--	41
Other comprehensive loss.....		--	--	--	--	(1,192
Comprehensive income.....						
Shares issued for stock options.....	235,024	235	4,083	--	--	--
Shares issued for employee savings plan.....		--	42	711	--	--
Retirement of treasury stock.....	(73,451)	(74)	(4,361)	4,435	--	--
Income tax effect from exercise of stock options.....		--	3,185	--	--	--
Shares tendered for exercise of stock options.....		--	--	(5,180)	--	--
Cash dividends.....		--	--	--	(10,810)	--
Balance, December 31, 2000.....	22,537,204	22,537	12,263	(232)	74,123	(124
Comprehensive income, net of tax:						
Net loss.....		--	--	--	(5,940)	--
Other comprehensive loss:						
Foreign currency translation adjustments.....		--	--	--	--	(1,462
Unrealized gain on available-for-sale investment.....		--	--	--	--	35

Other comprehensive loss		--	--	--	--	(1,427
Comprehensive loss						
Shares issued for stock options	74,000	74	1,480	--	--	--
Income tax effect from exercise of stock options		--	135	--	--	--
Cash dividends		--	--	--	(9,922)	--
Balance, December 31, 2001	22,611,204	$22,611	$13,878	$ (232)	$58,261	$(1,551

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

HELIX TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

	FOR THE YEARS ENDED DECEMBER 31,		
	2001	2000	1999
	(IN THOUSANDS)		
Cash flows from operating activities:			
Net (loss) income	$ (5,940)	$ 45,870	$ 15,864
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation and amortization	5,268	4,233	4,045
Deferred income taxes	737	596	(1,883)
Gain on sale of property	--	--	(1,397)
Undistributed earnings of joint venture, other	(1,643)	(4,085)	(533)
Performance-based stock compensation	--	--	1,581
Shares issued for employee savings plan	--	753	620
Income tax effect from exercise of stock options	135	3,185	330
Net change in other operating assets and liabilities (1)	10,656	(18,672)	(6,197)
Net cash provided by operating activities	9,213	31,880	12,430
Cash flows from investing activities:			
Proceeds from sale of property	--	--	2,500
Capital expenditures	(15,944)	(12,427)	(4,561)
Purchase of investments	(36,624)	(42,512)	(23,910)
Sale of investments	44,077	41,826	26,092
Net cash (used) provided by investing activities	(8,491)	(13,113)	121
Cash flows from financing activities:			
Shares tendered for exercise of stock options	--	(5,180)	(78)
Net cash provided by employee stock plans	1,554	1,250	803
Cash dividends paid	(9,922)	(10,810)	(10,711)

Net cash used by financing activities.....	(8,368)	(14,740)	(9,986)
(Decrease) increase in cash and cash equivalents.....	(7,646)	4,027	2,565
Cash and cash equivalents, January 1.....	15,435	11,408	8,843
Cash and cash equivalents, December 31.....	$ 7,789	$ 15,435	$ 11,408
(1) Change in other operating assets and liabilities:			
Decrease (increase) in receivables.....	$ 28,246	$(20,764)	$ (9,696)
Decrease (increase) in inventories.....	2,911	(11,762)	(3,631)
(Increase) decrease in income tax receivable.....	(7,344)	--	--
(Increase) decrease in other current assets.....	(369)	(582)	(520)
(Decrease) increase in accounts payable.....	(8,888)	9,503	4,738
(Decrease) increase in other accrued expenses.....	(3,900)	4,933	2,912
Net change in other operating assets and liabilities.....	$ 10,656	$(18,672)	$ (6,197)
Income taxes paid.....	$ 3,929	$ 15,294	$ 6,619

Supplemental disclosure of non-cash activity in 2001, 2000, and 1999 of $0, $3,068,000, and $0, respectively, was reclassed from other accrued expenses to equity in connection with issuance of stock options.

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

HELIX TECHNOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries after elimination of all intercompany transactions. The investment in and operating results of the Company's 50%-owned joint venture are included on the basis of the equity method of accounting.

USE OF ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Certain reclassifications have been made to prior years' consolidated financial statements to conform with the current presentation.

FOREIGN CURRENCY TRANSLATION

Assets and liabilities of subsidiaries outside the United States are translated into U.S. dollars using current exchange rates. Revenue and expense accounts are translated at the average rates in effect during the year. The effects of foreign currency translation adjustments are included in accumulated other comprehensive income (loss) as a component of stockholders' equity. Transaction gains/losses were not material. The effect of foreign currency exchange rates on cash and cash equivalents was not material.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include demand deposits, money market accounts, and other highly liquid investments with original maturities of three months or less at the date of purchase.

INVESTMENTS

The Company's investments are classified as available-for-sale securities, and the difference in the cost and fair value of these investments is included in other comprehensive income until maturity or sale of the investment at which time it is included in interest and other income. The Company's investments consist of the following:

	DECEMBER 31,			
	2001		2000	
	COST	FAIR VALUE	COST	FAIR VALUE
	(IN THOUSANDS)			
Money market funds.....	$ 946	$ 946	$ 2,397	$ 2,397
Municipal bonds, government agencies, and tax-free bonds.....	8,245	8,325	14,201	14,257
	$9,191	$9,271	$16,598	$16,654

CREDIT RISK

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents, short-term investments, short-term foreign exchange

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)
contracts, and trade receivables. Cash and cash equivalents are placed with the Company's primary bank, a major financial institution, with a high quality credit rating. The Company's investments consist of money market funds, municipal government agencies and tax-free bonds or investment-grade securities. The short-term foreign currency exchange contracts are entered into with its primary bank. The Company's customers are concentrated primarily in one industry segment, the semiconductor manufacturing industry, and, historically, a significant portion of the Company's sales have been to a limited number of customers within this industry. The Company performs ongoing credit evaluations of its customers' financial condition and may require deposits on large orders but does not require collateral or other security to support customer receivables.

INVENTORIES

	DECEMBER 31,	
	2001	2000
	(IN THOUSANDS)	
Finished goods	$ 8,570	$ 9,522
Work in process	13,067	15,336
Materials and parts	5,656	5,346
	$27,293	$30,204

Inventories are stated at the lower of cost or market on a first-in, first-out basis.

PROPERTY, PLANT, AND EQUIPMENT

Property, plant, and equipment is stated at cost.

	DECEMBER 31,	
	2001	2000
	(IN THOUSANDS)	
Machinery and equipment	$44,037	$39,462
Leasehold improvements	9,383	7,697
Construction in progress	11,695	2,781
	$65,115	$49,940

Depreciation is provided on the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the lesser of their useful life or the remaining life of the lease. Estimated useful lives of machinery and equipment range from 3 to 15 years.

Maintenance and repairs are charged to expense as incurred and betterments are capitalized. The cost of assets sold or retired and related depreciation are removed from the accounts at the time of sale and any resulting gain or loss is reflected in income.

REVENUE RECOGNITION

The Company recognizes revenue from product sales upon shipment provided title and risk of loss have been transferred to the customer, there is evidence of an arrangement, the price is fixed or determinable,

and collection is reasonably assured. Revenue from global support services is

recognized as performed or ratably over the period of the related agreements.

RESEARCH AND DEVELOPMENT COSTS

Research and development costs are expensed as incurred.

CAPITALIZED SOFTWARE COSTS

The Company capitalizes internal-use software development costs in accordance with the provisions of SoP 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use." The capitalized cost is amortized beginning when it is placed into service on a straight-line basis over its estimated life ranging from 3 to 7 years.

IMPAIRMENT OF LONG-LIVED ASSETS

The Company periodically evaluates the recoverability of long-lived assets whenever events and changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. When indicators of impairment are present, the carrying values of the asset are evaluated in relation to the operating performance and future undiscounted cash flows of the underlying business. The net book value of the underlying asset is adjusted to fair value if the sum of the expected discounted cash flows is less than book value. Fair values are based on estimates of market prices and assumptions concerning the amount and timing of estimated future cash flows and assumed discount rates, reflecting varying degrees of perceived risk.

STOCK COMPENSATION

Employee stock awards under the Company's and its subsidiaries' compensation plans are accounted for in accordance with Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees", ("APB 25") and related interpretations. The Company provides the disclosure requirements of Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation," ("SFAS 123") and related interpretations.

INCOME TAXES

Deferred income taxes result from temporary differences in the recognition of revenues and expenses between financial statements and tax returns. Tax credits are recognized when realized for tax purposes using the "flow-through" method of accounting. The Company has not provided for federal income taxes applicable to undistributed earnings of its foreign subsidiaries and its 50% owned joint venture since these earnings are indefinitely reinvested. The Company assesses the need for a valuation allowance at each balance sheet date based on all available evidence.

NET (LOSS) INCOME PER SHARE

Basic net (loss) income per common share is based on the weighted average number of common shares outstanding during the year. Diluted net (loss) income per common share reflects the potential dilution that could occur if outstanding stock options were exercised and converted into common stock at the beginning of the period.

The following table sets forth the computation of basic and diluted net (loss) income per common share:

	FOR THE YEARS ENDED DECEMBER 31,		
	2001	2000	1999
	(IN THOUSANDS EXCEPT PER SHARE DATA)		
Net (loss) income	$(5,940)	$45,870	$15,864
Basic shares	22,565	22,498	22,336
Add: Common equivalent shares (1)	--	264	287
Diluted shares	22,565	22,762	22,623
Basic net (loss) income per share	$ (0.26)	$ 2.04	$ 0.71
Diluted net (loss) income per share	$ (0.26)	$ 2.02	$ 0.70

---

(1) Common equivalent shares represent shares issuable upon conversion of stock options (using the treasury stock method). Options outstanding not included in the computation of diluted shares were 468,000 in 2001 because the Company was in a net loss position and the inclusion of such shares would be anti-dilutive. As of December 31, 2000, 80,000 options outstanding were not included in the computation, because the option price was greater than the average market price of the common shares. As of December 31, 1999, the Company had no stock options that were anti-dilutive.

B. COMMITMENTS AND CONTINGENCIES

The Company leases certain facilities and equipment under long-term operating leases.

Future minimum lease payments under the noncancelable operating leases are:

	OPERATING LEASES
	(IN THOUSANDS)
2002	$ 5,040
2003	4,077
2004	3,372
2005	2,819
2006	1,678
Later years	5,471
Total	$22,457

Total rental expense under operating leases was $5,777,000 in 2001, $5,334,000 in 2000 and $4,130,000 in 1999.

The Company enters into short-term foreign currency forward contracts with its primary bank to minimize the effect of foreign currency exchange rate fluctuations on certain intercompany transactions with its wholly owned European, Taiwanese, and Japanese subsidiaries. These derivative instruments are not designated as hedging instruments; therefore, gains and losses on these transactions are recorded in cost of sales. The gains and losses on these instruments partially offset the realized and unrealized foreign exchange gains and losses of the underlying exposures. The net gains and losses were not material for the years ended December 31, 2001, 2000 and 1999. The notional amounts of the Company's outstanding

B. COMMITMENTS AND CONTINGENCIES (CONTINUED)
foreign currency forward contracts at December 31, 2001 and 2000, were $9,210,000 and $12,022,000, respectively.

The Company has an agreement with a bank to sell specific Japanese Yen-"denominated" receivables, subject to recourse provisions. During 2001, approximately $1,616,000 of receivables were sold under these arrangements. As of December 31, 2001 and 2000, approximately $480,000 and $1,049,000, respectively, of these receivables sold to the bank remained outstanding. The Company does not believe it is materially at risk for any losses as a result of this agreement.

The Company is a defendant in an action brought in 1998 in the Massachusetts Superior Court by Raytheon Company which alleges that between 1992 and 1994 the Company sold Raytheon defective components used in missile guidance systems manufactured by Raytheon. The Company has not been in the business of selling these components since 1994. The Company has denied all claims that Raytheon has asserted and succeeded in having certain claims dismissed, although these dismissals are potentially appealable at the conclusion of the trial stage of the case. The action is in the discovery and motion phase and no trial date has been set. The Company believes that it has meritorious defenses and that, although the ultimate outcome of the matters cannot be predicted with certainty, the disposition of the matters should not have a material effect on our financial position.

The Company is also involved in various legal proceedings in the normal course of business. The Company believes these proceedings involve amounts that would not have a material effect on its financial position or results of operations if such proceedings were resolved unfavorably.

The Company has a three year revolving credit agreement with Fleet National Bank entered into in July 2000 that permits it to borrow up to $25.0 million, subject to compliance with certain covenants. Loans under the credit agreement bear interest for each calendar quarter at an annual rate equal to, at the Company's option, either the applicable LIBOR rate or the lender's base rate, plus a varying margin. The Company has no borrowings outstanding under the credit agreement. As of December 31, 2001, the Company is not in compliance with one of the financial covenants, relating to profitability, and therefore cannot access the line of credit at this time. As a result, the Company is currently in negotiations with the bank to amend the agreement.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

C. INCOME TAXES

The components of (loss) income before income taxes and the related (benefit from) provision for income taxes are presented below:

	FOR THE YEARS ENDED DECEMBER 31,		
	2001	2000	1999
	(IN THOUSANDS)		
(Loss) income before income taxes:			
Domestic	$(11,281)	$66,906	$22,500
Foreign	74	1,050	1,178
	$(11,207)	$67,956	$23,678
Income tax (benefit) provision:			
Current:			
Federal	$ (6,123)	$18,271	$ 8,114
Foreign	22	748	558
State	97	2,471	1,025
	(6,004)	21,490	9,697
Deferred:			
Federal	587	400	(1,675)
State	150	196	(208)
	737	596	(1,883)
Total	$ (5,267)	$22,086	$ 7,814

The Company's deferred tax assets and (liabilities) are comprised of the following:

	DECEMBER 31,	
	2001	2000
	(IN THOUSANDS)	
Deferred tax assets:		
Inventory valuation	$2,198	$2,810
Compensation and benefit plans	2,636	2,802
Leases	138	163
Depreciation	435	484
Net operating loss and tax credit carryforwards	95	104
Other	259	144
Total deferred tax assets	5,761	6,507
Deferred tax liabilities	(54)	(63)

Net deferred tax assets.....	$5,707	$6,444

Deferred income taxes on undistributed earnings of the foreign subsidiaries are not material. The Company believes that its deferred tax assets are more likely than not realizable; therefore, no valuation allowance is required.

C. INCOME TAXES (CONTINUED)

The table below reconciles the expected U.S. federal income tax (benefit) provision to the recorded income tax (benefit) provision in the statements of operations:

	DECEMBER 31,		
	2001	2000	1999
	(IN THOUSANDS)		
Federal tax computed at statutory rate of 35%.....	$(3,923)	$23,785	$8,287
State income taxes, net of federal income tax benefit.....	160	1,733	531
Foreign sales corporation tax benefit.....	--	(1,508)	(548)
Foreign earnings not subject to U.S. income taxes.....	(575)	(1,127)	(308)
R&D and foreign tax credits.....	(400)	(1,150)	(508)
Other, net.....	(529)	353	360
Income tax (benefit) provision.....	$(5,267)	$22,086	$7,814

D. CAPITAL STOCK

Options for the purchase of shares of the Company's common stock have been granted to officers, directors, and key employees under various nonqualified stock option agreements. The terms of these agreements provide that the options are exercisable over a number of years from the date of grant at not less than the fair market value at the date of grant.

Options expire at various dates through the year 2011. At December 31, 2001 and 2000, respectively, 842,250 and 916,250 shares of common stock were reserved for stock options. At December 31, 2001, 2000 and 1999, respectively, 188,625, 161,000 and 115,274 nonqualified stock options were exercisable. In 1989 the Company entered into an agreement with its president under which options to purchase up to 800,000 shares of the Company's common stock were granted at a price of $1.69 per share, exercisable over a ten-year period subject to the attainment of certain financial performance targets. At December 31, 1999, options for the purchase of 640,000 shares had been exercised. The remaining 160,000 shares became exercisable on March 1, 2000, and were exercised. In connection with this agreement, compensation expense of $0 and $1,581,000 was charged in 2000 and 1999, respectively.

In the first quarter of 1999, the Company entered into a new employment agreement with its president under which nonqualified options to purchase up to 200,000 shares of the Company's common stock were granted at the fair market value of $20.81 per share, vesting over an eight-year period.

D. CAPITAL STOCK (CONTINUED)
The following table summarizes option activity for the years ended 1999, 2000, and 2001:

OPTIONS OUTSTANDING	NUMBER OF COMMON SHARES	WEIGHTED AVERAGE EXERCISE PRICE
January 1, 1999	570,774	$14.41
Options granted	331,500	$21.68
Options exercised	(56,500)	$14.21
Options canceled	(73,500)	$20.65
December 31, 1999	772,274	$16.95
Options granted	40,000	$55.95
Options exercised	(235,024)	$ 7.54
Options canceled	(32,375)	$24.60
December 31, 2000	544,875	$23.42
Options granted	98,500	$27.79
Options exercised	(74,000)	$21.01
Options canceled	(101,000)	$33.84
December 31, 2001	468,375	$22.47

The following table summarizes information concerning outstanding and exercisable options at December 31, 2001:

	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE	
RANGE OF EXERCISE PRICES	NUMBER OUTSTANDING	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER EXERCISABLE	WEIGHTED AVERAGE EXERCISE PRICE
$ 2.86 - $18.44	93,250	2.6 years	$16.41	89,250	$16.74
$20.81 - $20.81	237,625	5.8 years	$20.81	53,875	$20.81
$23.11 - $28.83	122,500	7.5 years	$26.01	40,500	$23.94
$40.69 - $65.97	15,000	8.1 years	$57.54	5,000	$53.33
$ 2.86 - $65.97	468,375	5.7 years	$22.47	188,625	$20.42

The Company adopted the disclosure-only option under Statement of Financial Accounting Standards No. 123 (SFAS 123), "Accounting for Stock-Based Compensation." If the accounting provisions of

D. CAPITAL STOCK (CONTINUED)
SFAS 123 had been adopted, the effect on net (loss) income and basic and diluted net (loss) income per share would have been as follows:

	FOR THE YEARS ENDED DECEMBER 31,		
	2001	2000	1999
	(IN THOUSANDS EXCEPT PER SHARE DATA)		
As Reported			
Net (loss) income	$(5,940)	$45,870	$15,864
Basic net (loss) income per share	$ (0.26)	$ 2.04	$ 0.71
Diluted net (loss) income per share	$ (0.26)	$ 2.02	$ 0.70
Pro Forma			
Net (loss) income	$(6,447)	$45,023	$15,179
Basic net (loss) income per share	$ (0.29)	$ 2.00	$ 0.68
Diluted net (loss) income per share	$ (0.29)	$ 1.98	$ 0.67

The weighted average fair value of options granted during 2001, 2000, and 1999 was $14.80, $31.96 and $10.63, respectively. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions:

	2001	2000	1999
Dividend yield	1.8%	1.2%	1.8%
Expected stock price volatility	60%	60%	50%
Risk-free interest rate	5.13%	6.38%	5.18%
Expected holding period (years)	6.4	6.2	7.4

E. OTHER ASSETS

The Company owns 50% of a joint venture company, Ulvac Cryogenics, Inc., with an unrelated Japanese manufacturer to produce cryogenic vacuum pumps in Japan.

Condensed results of operations for the joint venture for each of the three fiscal years ended September 30 are as follows:

	2001	2000	1999
	(IN THOUSANDS)		
Net sales	$36,233	$46,199	$24,229
Gross profit	$11,294	$16,511	$ 7,847
Net income	$ 3,284	$ 6,443	$ 1,762
Joint venture income, including royalty income and equity income	$ 2,398	$ 4,132	$ 1,415

E. OTHER ASSETS (CONTINUED)
Condensed balance sheet information as of September 30 is as follows:

	2001	2000
	(IN THOUSANDS)	
Current assets	$29,690	$41,743
Noncurrent assets	5,994	5,230
Total assets	$35,684	$46,973
Current liabilities	$12,152	$23,075
Long-term liabilities	1,248	1,118
Stockholders' equity	22,284	22,780
Total liabilities and stockholders' equity	$35,684	$46,973

The Company's net investment in the joint venture of approximately $11,142,000 and $10,998,000 at December 31, 2001 and 2000, respectively, is reported in other assets. The Company's net investment at December 31, 2001 and 2000, reflects a cumulative translation loss of $254,000 and a cumulative translation gain of $728,000, respectively. This currency translation gain or loss, which is included in stockholders' equity, resulted from translating the balance sheet of the joint venture into U.S. dollars.

F. SEGMENT INFORMATION

LINE OF BUSINESS AND FOREIGN OPERATIONS

The Company operates in one reportable segment: the development, manufacture, sale, and support of cryogenic and vacuum equipment. The Company's management currently uses consolidated financial information in determining how to allocate resources and assess performance.

The consolidated financial statements include the accounts of wholly owned international subsidiaries that operate customer support facilities to sell and service products manufactured in the United States. A summary of United States and international operations follows for the years ended December 31:

	UNITED STATES	INTERNATIONAL	CONSOLIDATED
		(IN THOUSANDS)	
2001			
Net sales	$ 87,418	$25,576	$112,994
Long-lived assets	$ 37,114	$ 4,488	$ 41,602
2000			
Net sales	$217,885	$35,200	$253,085
Long-lived assets	$ 27,531	$ 3,249	$ 30,780
1999			
Net sales	$119,154	$20,235	$139,389
Long-lived assets	$ 17,328	$ 2,420	$ 19,748

F. SEGMENT INFORMATION (CONTINUED)
EXPORT SALES AND SIGNIFICANT CUSTOMERS

The Company's export sales of $7,795,000 in 2001, $16,431,000 in 2000 and $10,663,000 in 1999 are included in U.S. results.

The Company's largest customer represented 21%, 40%, and 29% of net sales for 2001, 2000, and 1999, respectively.

G. EMPLOYEE BENEFIT PLANS

A noncontributory defined benefit pension plan and a defined contribution plan function together as the Company's retirement program, covering substantially all of the Company's employees who have one year of service.

The following tables set forth the funded status of the defined benefit pension plan and the amount reflected in the Company's consolidated balance sheets, projected benefit obligation, and fair value of assets of the plan.

RECONCILIATION OF FUNDED STATUS

	DECEMBER 31,	
	2001	2000
	(IN THOUSANDS)	

Funded status	$(2,715)	$ 944
Unrecognized prior service cost	17	26
Unrecognized net transition asset	(66)	(106)
Unrecognized net actuarial gain	(2,618)	(5,245)
Accrued pension cost	$(5,382)	$(4,381)

RECONCILIATION OF PROJECTED BENEFIT OBLIGATION

	2001	2000
	(IN THOUSANDS)	
Benefit obligation January 1	$ 7,986	$5,879
Service cost	1,401	1,146
Interest cost	693	574
Actuarial loss	1,300	787
Benefits paid	(652)	(400)
Settlements or curtailments	(238)	--
Benefit obligation December 31	$10,490	$7,986

G. EMPLOYEE BENEFIT PLANS (CONTINUED)
RECONCILIATION OF FAIR VALUE OF ASSETS

	2001	2000
	(IN THOUSANDS)	
Fair value of assets January 1	$8,930	$8,215
Actual return on plan assets	(503)	615
Benefits paid	(652)	(400)
Transfer from Personal Account Plan	--	500
Fair value of assets December 31	$7,775	$8,930

The Company's net pension cost included the following components:

	2001	2000	1999
	(IN THOUSANDS)		
Service cost	$1,401	$1,146	$1,024
Interest cost	693	574	515

Expected return on assets	(669)	(611)	(546)
Net amortization of:			
Prior service cost	7	7	7
Net actuarial gain	(156)	(291)	(125)
Transition obligation	(39)	(39)	(39)
Curtailment gain	(236)	--	--
Net periodic pension cost	$1,001	$ 786	$ 836

Key assumptions used in computing year-end obligations for the defined benefit plan were:

	2001	2000	1999
Discount rate for obligations	7.25%	7.50%	8.00%
Rate of compensation increase	5.00%	5.00%	5.50%
Long-term rate of return on assets	9.00%	9.00%	9.00%

The Company has Employee Savings Plans, qualified under Section 401(k), which are designed to supplement retirement income. The Company contributes a percentage of the participants' contributions up to a defined maximum amount. The contributions expense, net of forfeitures, was $1,799,000 in 2001, $1,817,000 in 2000 and $1,239,000 in 1999.

The Company has a Supplemental Key Executive Retirement Plan which is designed to supplement benefits paid to participants under Company-funded, tax-qualified retirement plans. The Company recorded additional retirement costs of $167,000 in 2001, $217,000 in 2000 and $186,000 in 1999 in connection with this plan.

H. RESTRUCTURING CHARGES

During the third quarter of 2001, the Company implemented and completed a restructuring program that resulted in the reduction of approximately 110 employees in response to the continued slowdown in the

H. RESTRUCTURING CHARGES (CONTINUED)
semiconductor capital equipment industry. As a result, the Company recorded a restructuring charge of approximately $1.0 million primarily related to severance and fringe benefit costs.

I. GAIN ON SALE OF BUILDING

The Company sold its Colorado facility in December 1999, recognizing a $1.4 million gain, and moved to a new leased facility during 2000.

J. RECENT ACCOUNTING PRONOUNCEMENTS

In July 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 141 (SFAS 141), "Business Combinations." SFAS 141 requires the purchase method of accounting for business combinations

initiated after June 30, 2001 and eliminates the pooling of interests method.

In July 2001, the FASB issued Statement of Financial Accounting Standards No. 142 (SFAS 142), "Goodwill and Other Intangible Assets," which became effective for us on January 1, 2002. SFAS 142 requires, among other things, the discontinuance of goodwill amortization and includes provisions for the reclassification of certain existing recognized intangibles as goodwill, reassessment of the useful lives of existing recognized intangibles and reclassification of certain intangibles out of previously reported goodwill. The revised standards include transition rules and requirements for identification, valuation and recognition of a much broader list of intangibles as part of business combinations than prior practice, most of which will continue to be amortized.

In October 2001, the FASB issued Statement of Financial Accounting Standards No. 144 (SFAS 144), "Accounting for the Impairment or Disposal of Long-Lived Assets." The objectives of SFAS 144 are to address significant issues relating to the implementation of FASB Statement No. 121 (SFAS 121), "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," and to develop a single accounting model, based on the framework established in SFAS 121, for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired. SFAS 144 is effective for financial statements issued for fiscal years beginning after December 15, 2001 and, generally, its provisions are to be applied prospectively.

The Company believes that the adoption of these standards will not have a material impact on its consolidated financial statements.

HELIX TECHNOLOGY CORPORATION

SCHEDULE II--VALUATION AND QUALIFYING ACCOUNTS

FOR THE YEARS ENDED DECEMBER 31, 2001, 2000, AND 1999

(IN THOUSANDS)

DESCRIPTION	BALANCE AT BEGINNING OF PERIOD	ADDITIONS: CHARGED TO COSTS AND EXPENSES	ADDITIONS: CHARGED TO OTHER ACCOUNTS	DEDUCTIONS FROM RESERVES	BA OF
Year ended December 31, 2001					
Allowance for doubtful accounts.....	$197	$328	$ --	$125	
Year ended December 31, 2000					
Allowance for doubtful accounts.....	$185	$100	$ --	$ 88	
Year ended December 31, 1999					
Allowance for doubtful accounts.....	$228	$ 63	$ --	$106	

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

We did not change accountants or file any Current Reports on Form 8-K reporting a disagreement on an accounting principle, practice or financial statement disclosure during the three-year period ended December 31, 2001.

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.

Additional information required by this item is incorporated herein by reference to the registrant's proxy statement for its 2002 Annual Meeting of Stockholders that will be filed with the SEC on February 21, 2002 pursuant to Regulation 14A.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item is incorporated herein by reference to the registrant's proxy statement for its 2002 Annual Meeting of Stockholders that will be filed with the SEC on February 21, 2002, pursuant to Regulation 14A.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Information required by this item is incorporated herein by reference to the registrant's proxy statement for its 2002 Annual Meeting of Stockholders that will be filed with the SEC on February 21, 2002, pursuant to Regulation 14A.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

There were no related-party transactions.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a) 1. Financial Statements.

The Consolidated Financial Statements are listed under Item 8 of this report.

2. Financial Statement Schedules.

The required Financial Statement Schedules are listed under Item 8 of this report.

3. Exhibits.

The Exhibits filed as part of this report are listed on the Exhibit Index immediately following the signature page hereto, which Exhibit Index is incorporated herein by reference.

(b) The Company did not file any Current Reports on Form 8-K during the quarter ended December 31, 2001.

(c) Exhibits required by Item 601 of Regulation S-K are listed on the Exhibit Index immediately following the signature page hereto.

(d) Separate financial statements of: (1) subsidiaries not consolidated and fifty-percent-or-less owned persons; (2) affiliates whose securities are pledged as collateral; and (3) other Schedules are not filed because they are either not applicable or the items do not exceed the various disclosure levels.

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 20th day of February, 2002.

HELIX TECHNOLOGY CORPORATION
(Registrant)

/s/ ROBERT J. LEPOFSKY

Robert J. Lepofsky
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 20th day of February, 2002, in the capacities indicated.

SIGNATURES	TITLES
(i) Principal Executive Officer	
/s/ ROBERT J. LEPOFSKY Robert J. Lepofsky	President and Chief Executive Offic
(ii) Principal Financial Officer	
/s/ JAY ZAGER Jay Zager	Senior Vice President and Chief Fin Officer
(iii) Principal Accounting Officer	
/s/ TEODOR KLOWAN, JR. Teodor Klowan, Jr.	Corporate Controller and Chief Acco Officer

SIGNATURES	TITLES

(iv) A Majority of the Board of Directors

/s/ ARTHUR R. BUCKLAND Arthur R. Buckland	Director
/s/ MATTHEW O. DIGGS, JR. Matthew O. Diggs, Jr.	Director
/s/ FRANK GABRON Frank Gabron	Director
/s/ ROBERT H. HAYES Robert H. Hayes	Director
/s/ ROBERT J. LEPOFSKY Robert J. Lepofsky	Director
/s/ MARVIN G. SCHORR Marvin G. Schorr	Director and Chairman of the Board
/s/ MARK S. WRIGHTON Mark S. Wrighton	Director

EXHIBIT INDEX

2.1	Agreement and Plan of Merger dated as of April 16, 1998, among Helix Technology Corporation, Helix Acquisition Corporation, Granville-Phillips Company, and certain principal stockholders of Granville-Phillips Company. Filed as Exhibit 2.1 to the Company's Current Report on Form 8-K filed May 15, 1998 and incorporated herein by reference.
2.2	Escrow Agreement dated May 7, 1998. Filed as Exhibit 2.3 to the Company's Current Report on Form 8-K filed May 15, 1998 and incorporated herein by reference.
3.1	Restated Certificate of Incorporation, as amended on May 7, 1987, May 18, 1988, April 20, 1995 and April 29, 1998. Filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed May 15, 1998 and incorporated herein by reference.
3.2	Bylaws, as amended through December 9, 1987. Filed herewith.

10.1	Basic agreement between the Company and Ulvac Corporation dated August 17, 1981. Filed as Exhibit 10.13 to a Registration Statement on Form S-2, Registration No. 2-84880, and incorporated herein by reference.
10.2	Lease agreement dated July 24, 1984, as amended July 26, 1999, between Long Gate LLC as Lessor and the Company as Lessee. Filed as Exhibit 10.2 to the Company's Form 10-K for the Year Ended December 31, 1999 and incorporated herein by reference.
10.3	Lease agreement dated May 23, 1991, between Mansfield Corporate Center Limited Partnership as Lessor and the Company as Lessee. Filed as Exhibit 10-(14) to the Company's Form 10-K for the Year Ended December 31, 1991 and incorporated herein by reference.
10.4	Lease agreement dated May 21, 1996, between LakeCenter Plaza, Ltd., LLP as Lessor and the Company as Lessee. Filed as Exhibit 10-(4) to the Company's Form 10-K for the Year Ended December 31, 1998 and incorporated herein by reference.
10.5	Lease agreement dated August 7, 1998, between Mitsubishi Jisho Co., Ltd. as Lessor and the Company as Lessee. Filed as Exhibit 10-(5) to the Company's Form 10-K for the Year Ended December 31, 1998 and incorporated herein by reference.
10.6	Lease agreement dated May 14, 1999, between MUM IV, LLC as Lessor and the Company as Lessee. Filed as Exhibit 10.6 to the Company's Form 10-K for the Year Ended December 31, 1999 and incorporated herein by reference.
10.7	Revolving Credit Agreement, dated July 18, 2000, by and between Helix Technology Corporation and Fleet National Bank. Filed as Exhibit 4.1 to the Company's Form 10-Q for the Quarter Ended September 29, 2000 and incorporated herein by reference.
10.8	The Company's informal incentive bonus plan. Filed as Exhibit 10.9 to a Registration Statement on Form S-2, Registration No. 2-84880 and incorporated herein by reference.*
10.9	The Company's Supplemental Key Executive Retirement Plan effective February 13, 1992. Filed as Exhibit 14-(14) to the Company's Form 10-K for the Year Ended December 31, 1992 and incorporated herein by reference.*
10.10	The Company's 1996 Equity Incentive Plan. Included as Exhibit A to the Company's Definitive Proxy Statement on Schedule 14-A filed on March 25, 1996 for its 1996 Annual Meeting of Stockholders held on April 24, 1996 and incorporated herein by reference.*
10.11	The Company's Amended and Restated Stock Option Plan for Non-Employee Directors. Filed herewith.*
10.12	Employment Agreement dated July 18, 1997, between the Company and Robert E. Anastasi. Filed as Exhibit 10-(13) to the Company's Form 10-K for the Year Ended December 31, 1997

and incorporated herein by reference.*

10.13	Employment Agreement dated February 11, 1999, between the Company and Robert J. Lepofsky. Filed as Exhibit 10-(1) to the Company's Form 10-Q for the Quarter Ended April 2, 1999 and incorporated herein by reference.*
10.14	The Company's Supplemental Benefit Plan. Filed as Exhibit 10.15 to the effective April 1, 1999. Company's Form 10-K for the Year Ended December 31, 1999 and incorporated herein by reference.*
10.15	Directors' Deferred Compensation Plan. Filed herewith.*
21.1	Subsidiaries of the Registrant. Filed herewith.
23.1	Consent of Independent Accountants. Filed herewith.
99.1	Important Factors That May Affect Future Results. Filed herewith.

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* Denotes management contract or compensation plan.