HOLOGIC INC
Form S-3
November 16, 2001

As filed with the Securities and Exchange Commission on November 16, 2001
Registration No. 33-

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
Under
The Securities Act of 1933

HOLOGIC, INC.
(Exact Name Of Registrant As Specified In Its Charter)

Delaware	04-2902449
(State Or Other Jurisdiction Of Incorporation Or Organization)	(I.R.S. Employer Identification Number)

35 Crosby Drive, Bedford, Massachusetts 01730-1401 (781) 999-7300
(Address, Including Zip Code, And Telephone Number, Including Area Code, Of Registrant's Principal Executive Offices)

John W. Cumming
President and Chief Executive Officer
Hologic, Inc.
35 Crosby Drive,
Bedford, Massachusetts 01730-1401
(781) 999-7300
(Name, Address, Including Zip Code, And Telephone Number, Including Area Code, Of Agent For Service)

Copies to:

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Boston, Massachusetts 02111	San Francisco, CA 94105
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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

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

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

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

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to Be Registered	Amount to Be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Propose Maximum Aggregat Offering P
Common Stock, $ .01 par value	3,000,000 shares	$ 9.66	$28,980,
Rights to Purchase common stock (3)	---	---	---

(1) Includes such presently indeterminable number of additional shares of common stock as may be issued in the event of a merger, consolidation, reorganization, recapitalization, stock dividend, stock split, stock combination or other similar changes in the common stock.
(2) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457(c) under the Securities Act of 1933.
(3) Pursuant to a Rights Agreement entered into in 1992, as amended, one right (each a "Right") is deemed to be delivered with each share of common stock issued by us. The Rights currently are not separately transferable apart from the common stock, nor are they exercisable until the occurrence of certain events. Accordingly, no independent value has been attributed to the Rights.

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

EXPLANATORY NOTE

This is a Form S-3 Registration Statement for the shelf registration of 3,000,000 shares of common stock. We have also included in this Registration Statement a Prospectus Supplement relating to an initial offering of approximately 2,000,000 shares of our common stock plus an additional 300,000 shares to cover over-allotments, if any, which we expect will be underwritten by Needham & Company, Inc. We anticipate that this initial offering will be effected promptly following the effective date of this Registration Statement.

+THE INFORMATION IN THIS PROSPECTUS SUPPLEMENT IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS SUPPLEMENT IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE OR JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED NOVEMBER 16, 2001

PROSPECTUS

Prospectus Supplement (to Prospectus dated November __, 2001)

2,000,000 Shares

[HOLOGIC LOGO]

Common Stock

We are offering 2,000,000 shares of our common stock. Our common stock is traded on the Nasdaq National Market under the symbol "HOLX." On November 15, 2001, the last reported sale price for the common stock on the Nasdaq National Market was $9.92 per share.

Investing in our common stock involves certain risks. See "Risk Factors" beginning on page S-10.

	Per Share	Total
Public Price	$____	$_____
Underwriting Discount	$____	$_____
Proceeds, before expenses, to Hologic	$____	$_____

We have granted the underwriter the right to purchase up to an additional 300,000 shares of our common stock to cover over-allotments.

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

Needham & Company, Inc.

The date of this prospectus supplement is _____, 2001.

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PROSPECTUS SUPPLEMENT

PROSPECTUS

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS DOCUMENT OR TO WHICH WE HAVE REFERRED YOU. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION THAT IS DIFFERENT. THIS DOCUMENT MAY BE USED ONLY WHERE IT IS LEGAL TO SELL THESE SECURITIES. THE INFORMATION IN THIS DOCUMENT MAY ONLY BE ACCURATE ON THE DATE OF THIS DOCUMENT.

The Hologic Logo is one of our service marks. QDR, ACCLAIM, Sahara, EPEX, RADEX, StereoLoc and Lorad are our registered trademarks. Affinity, QDR 4000, QDR 4500, QDR 4500A, QDR 4500SL, QDR 4500W, QDR 4500C, Delphi, FluoroScan, Premier, OfficeMate, FluoroScan Imaging Systems, DirectRay, DR 1000C, Elite, MultiCare, HTC, Automatic Internal Reference System, Instant Vertebral Assessment, and Direct Radiography are other trademarks that we own. This prospectus supplement may also include the trade names and trademarks of companies other than us whose mention herein is with due recognition of and without intent to misappropriate their marks.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements involve known and unknown risks, uncertainties and other factors which may cause our or our industry's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to statements regarding:

- our goal of returning to profitability;
- our goal of expanding our market positions;
- the development of new competitive technologies and products;
- regulatory approval and clearances for our products;

- market acceptance of new products;
- business strategies;
- dependence on significant suppliers;
- dependence on significant distributors and customers;
- the availability of debt and equity financing;
- general economic conditions; and
- our financial condition or results of operations.

In some cases, you can identify forward-looking statements by terms such as "may," will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and similar expressions intended to identify forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading "Risk Factors." Also, these forward-looking statements represent our estimates and assumptions only as of the date of this prospectus supplement.

You should read this prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference completely and with the understanding that our actual future results may be materially different from what we expect. We may not update these forward-looking statements, even though our situation may change in the future. We qualify all of our forward-looking statements by these cautionary statements.

SUMMARY

This summary provides an overview of selected information and may not contain all of the information that is important to you. You should read the entire prospectus supplement and the accompanying prospectus carefully, including the financial data, related notes and the information we have incorporated by reference before making an investment decision. Unless otherwise indicated, all information in this prospectus supplement assumes that the underwriter does not exercise its over-allotment option.

Unless otherwise indicated or unless the context otherwise requires, all references in this prospectus supplement to "we," "us," or similar references mean Hologic, Inc. and its subsidiaries.

Hologic Overview

We are a leading developer, manufacturer and supplier of diagnostic and medical imaging systems primarily serving the healthcare needs of women. We focus our resources on developing systems and subsystems offering superior image quality and diagnostic accuracy, which has enabled us to capture significant market shares and customer loyalty, despite the presence of large competitors. Our core women's healthcare business units are focused on bone densitometry, mammography and breast biopsy and on developing a direct-to-digital X-ray mammography system. Our bone densitometry product line and our Lorad line of

mammography systems are premier brands in their markets. In addition, we develop, manufacture and supply other X-ray based imaging systems, such as general purpose direct-to-digital X-ray equipment and mini c-arm imaging products. Our customers are hospitals, imaging clinics and private practices and include many of the leading healthcare organizations in the world. Our customers are also major pharmaceutical companies who use our products in conducting clinical trials.

We were founded on and remain committed to the principle of applying superior technology to medical imaging challenges. We achieved our first market and technology position shortly after the introduction of our first product targeting bone densitometry in 1986. Our patented technology remains the leading bone densitometry assessment tool available, offering superior, cost-effective accuracy and reliability. Starting in 1996, we embarked on an acquisition program intended to expand and diversify our business. In 1996 we acquired FluoroScan Imaging Systems, a market leader for low intensity, real-time mini c-arm X-ray imaging devices that address the trend towards minimally invasive surgery. We have long identified mammography as an attractive growth opportunity where superior imaging technology could significantly improve diagnosis. With this goal in mind, in June 1999, we acquired Direct Radiography Corporation, or DRC, from Sterling Diagnostics and have continued to invest in the development of their direct-to-digital X-ray technology, DirectRay, targeting mammography as well as general radiography applications. While we originally intended to internally develop mammography systems based on DirectRay, in September 2000 we significantly expedited our entry into the mammography market by acquiring the U.S. assets of Trex Medical Corporation, which included the Lorad product line of mammography and minimally invasive breast biopsy systems used to detect breast cancer. Lorad has a worldwide installed base of over 9,500 mammography systems and its products are known within the industry for superior image quality and technological innovation. We plan on integrating our DirectRay technology into the Lorad mammography product line, selling both digital upgrades to our existing installed base and new digital systems to potential customers.

As a result of these acquisitions and our commitment to develop digital radiography, particularly for mammography systems, we generated losses in fiscal 1999, 2000 and 2001. Following the death in June 2001 of S. David Ellenbogen, our co-founder, Chairman and Chief Executive Officer, John W. Cumming was named Chief Executive Officer and President. In August 2001, we implemented an extensive restructuring plan focused on returning to profitability and strengthening our competitive position in the women's health and emerging digital imaging markets. The restructuring plan included a company-wide cost savings initiative, which we estimate will result in annual cost savings in excess of $10 million. Cost savings initiatives which have been effected include a reduction of the workforce, reduction of operating expenses in each of our four business units and the phase-out of non-core and unprofitable units. The second element of our restructuring plan focuses on long-term revenue growth through new marketing programs, expanded distribution channels, and development of strategic business relationships. Consistent with the plan, we announced in November 2001 that we have entered into a non-exclusive distribution agreement with Siemens Medical Solutions, a unit of Siemens AG, for the sale of our X-ray bone densitometers throughout the United States. We also announced the closure of our conventional X-ray equipment manufacturing facility located in Littleton, Massachusetts, acquired through our acquisition of Trex Medical. This business incurred significant losses during fiscal 2001. We intend to relocate certain of its product lines and sales and service support personnel to our corporate headquarters in Bedford, Massachusetts. Since the beginning of fiscal 2001 we have reduced our workforce by approximately 25%.

We are focused on returning to profitability, expanding our market position in bone densitometry and mammography, and leading the field of digital mammography. We are evaluating new marketing programs to expand market share in our core markets, assessing new distribution channels for our product portfolio and pursuing business relationships that would allow us to further leverage our state-of-the-art technology base.

Our Markets and Products

Our core women's healthcare business units are focused on bone densitometry, mammography and breast biopsy and developing a direct-to-digital X-ray mammography system. In addition, we develop, manufacture and supply general purpose direct-to-digital X-ray equipment, and other X-ray based imaging systems, such as c-arm imaging products.

Bone Densitometry

Bone densitometry is the precise measurement of bone density to assist in the diagnosis and monitoring of osteoporosis and other metabolic bone diseases that can lead to debilitating bone fractures, often of the spine and hip. Currently the National Osteoporosis Foundation estimates that approximately 28 million Americans and 250 million people worldwide, the majority of whom are women, suffer from osteoporosis and 75% of the women at risk remain undiagnosed and untreated. Each year osteoporosis contributes to more than 1.5 million new hip, spine and other fractures. In August 2000, the National Institutes of Health estimated that national direct expenditures, for osteoporotic and associated fractures were $10 to $15 billion per year. A significant boost for our bone assessment business was the 1995 introduction of drug therapies to treat and prevent osteoporosis. We believe that the introduction of new drug therapies, the aging of the population, and an increased focus on women's health issues and preventive medical practices has created a growing awareness among patients and physicians that osteoporosis is treatable. As a result, more women than ever are seeking bone assessment for osteoporosis. We believe that the demand for our bone densitometry systems will continue to be driven by an increase in the number of available therapies to treat osteoporosis, the increase in the at-risk population, and broader reimbursement coverage for bone density testing. In fiscal 2001, we shipped more than 750 dual X-ray bone densitometry systems worldwide which we believe represents at least 50% of the worldwide market for those systems.

We introduced our first product serving the bone densitometry market in 1986 and quickly gained recognition for our superior technology, product reliability and customer service. Our patented dual-energy X-ray technology remains a leading bone densitometry assessment tool available, offering superior, cost-effective accuracy and reliability. In 1999, we introduced our next-generation densitometer, Delphi QDR, which incorporates our patented fan beam imaging technology and Instant Vertebral Assessment, or IVA, technology. These dual technologies enable physicians to simultaneously measure bone density and visually assess vertebral status in a clinical setting. The ability to conduct these two diagnostic procedures with one system enables doctors to cost-effectively improve fracture risk assessment and to capture greater reimbursement fees. In May 2001, we received the 2001 Frost & Sullivan Technology Innovation Award in the osteoporosis diagnostics market, given for technical superiority within the industry.

We began commercial shipments of our base models of the Delphi series in March of 2000 and introduced more advanced systems, which perform lateral, side-to-side scans of the lower spine without patient repositioning, in November 2000. In our quarter ended September 29, 2001, high-end Delphi represented approximately 70% of our shipments of X-ray bone densitometry systems, and our bone densitometry revenues in the quarter were the highest in the last two

fiscal years. Over 500 Delphi systems have been installed. In addition to sales of new Delphi systems, we also offer upgrade opportunities to purchasers of many of our earlier generation systems that incorporate the technology advantages of Delphi. Worldwide, over 4,000 previously installed Hologic systems can be upgraded to Delphi capabilities. Through September 29, 2001, over 150 previously installed systems have been upgraded.

In November 2001, we announced a non-exclusive distribution agreement with Siemens Medical Solutions, a unit of Siemens AG, for the sale of our X-ray bone densitometers throughout the United States. Siemens is a global leader in medical imaging technologies and we view this partnership as a first step in forging a long-term relationship with Siemens. With the Siemens relationship, we hope to increase sales of our bone densitometry line to the Siemens customer base and increase our presence in the hospital market.

Mammography and Breast Biopsy

According to the American Cancer Society, breast cancer is the most common cancer among women, and an estimated 192,000 new invasive cases of breast cancer are expected to occur among women in the United States during 2001.

Breast cancer ranks as the second leading cause of death among women, causing an estimated 40,000 deaths in 2001. A leading industry analyst has estimated that the mammography imaging equipment market was $272 million in 1999 and may grow to $567 million by 2007. When we acquired the U.S. assets of Trex Medical in September 2000, we immediately gained a significant market share in the breast mammography and biopsy market and a leading market share in the high-end segment of the mammography market in which we primarily compete. In fiscal 2001 we shipped 589 mammography systems worldwide.

Our Lorad division offers a broad product line of breast imaging products, including a range of mammography systems and breast biopsy systems. Currently our highest-end Lorad system, the M-IV, is considered a technology leader in the mammography marketplace. The M-IV incorporates our High Transmission Cellular Imaging System, recognized by Frost & Sullivan in connection with Lorad's receipt of the 2001 Frost & Sullivan Technology Innovation Award, as one of the most effective contrast improvements in 20 years of breast imaging. The patented HTC technology reduces X-ray scatter in two dimensions, delivering superior contrast and resolution without an increase in radiation dose. In addition, we recently received marketing clearance from the FDA for our Lorad Affinity mammography system, which is a high-performance screen-film mammography system specifically developed to fill a market need for a cost-effective product, with performance characteristics similar to high-end systems. We expect to begin full commercial production of these systems in the first quarter of 2002.

Digital Radiography

We have made a strategic commitment to digital radiography. We believe that the advantages of digital radiography over conventional film technology create a market with significant growth potential in general and in our core mammography market in particular. Digital image capture offers speed, eliminates film storage issues and provides for almost instantaneous image preview, modification and re-take when required. Diagnostic images captured in an outpatient setting can be delivered electronically for interpretation throughout a provider's computer network and can enable hospitals to share patient data and allow radiologists to confer more easily regarding diagnoses. In spite of their

high acquisition cost, we believe that digital radiography systems are cost effective in the long-term when considering increased throughput, savings in film-related expenses, image storage and transfer costs as well as the benefits of enhanced diagnostic convenience.

We believe that a significant factor in the market's acceptance of digital technology is the current transition within the health-care industry from conventional X-ray film archiving to Picture, Archive and Communication Systems, known as PACS, to store X-ray images electronically. Currently, industry analysts estimate that approximately 10% of hospitals have adopted the PACS environment. This adoption rate is expected to accelerate over the next several years as hospitals realize the value and cost savings of a filmless infrastructure. Industry analysts estimate that the worldwide replacement market for installed X-ray units is 13,000 systems per year, and, while not all facilities in which X-ray units are installed will migrate to digital technology, we believe many large facilities will, particularly those in the U.S. where PACS is an important initiative.

According to an industry analyst, worldwide there are approximately 100,000 X-ray units installed in hospital radiology departments and an additional 100,000 units installed in alternate care sites including clinics, imaging centers, and private practices. Although the market for general radiography products is mature, the market for digital X-ray systems is expected to grow substantially over the next several years. By 2005, a leading industry analyst projects that the market for digital radiography products will reach $1.0 billion annually.

Digital radiography can be implemented with a number of technologies, involving the direct or indirect conversion of X-ray energy captured by a detector into electronic signals. The different digital technologies are principally differentiated by their image resolution, X-ray dosage requirement, cost and field of view. First-generation digital radiography systems use indirect-conversion detectors where the X-ray energy is first converted into light, through the use of a fluorescent screen or other device, and then into electronic signals. Second-generation systems utilize a direct conversion method wherein the X-rays are absorbed and the electric signals are created in one step. Amorphous selenium is currently the only commercially available direct conversion technology.

Selenium is particularly-well suited for high-quality digital imaging, because it has high X-ray absorption efficiency, very high intrinsic resolution, low noise and a well-established manufacturing process. We believe that amorphous selenium technology results in the highest quality digital image across a wide range of general radiographic applications and is particularly valuable for mammography which has the highest resolution requirements.

We have developed two digital technologies. Our first-generation digital technology, developed by Lorad, involves charged coupled devices, or CCDs, to detect the light emitted by a fluorescent screen. Our second-generation digital technology is DirectRay, developed by DRC, and is a selenium-based direct-conversion technology. While we have no exclusivity on the use of amorphous selenium in detector plates, we hold 27 patents related to our DirectRay technology, and we believe that our amorphous selenium development efforts are the most advanced in the industry. As the only commercially available, FDA-cleared, direct-conversion selenium detector, we believe that our DirectRay technology has the potential to gain industry acceptance.

We currently offer the DirectRay digital technology in several forms for general radiographic applications, including as fully integrated

radiographic systems, such as our EPEX and RADEX systems and our Digital Chest imaging systems, as an image capture upgrade to existing X-ray equipment, and as a digital component for OEMs to incorporate into their own equipment. As of the close of our fourth quarter of 2001, we had a record backlog of 26 systems, or greater than $8 million, due to increasing orders for our EPEX, RADEX and Digital Chest imaging systems. We have OEM agreements for our amorphous selenium flat panels with Agfa Corporation for non-destructive imaging applications as well as Analogic Corporation as part of its supply agreement with Eastman Kodak.

Digital Mammography System

Digital technology is expected to bring particularly important benefits to mammography. In addition to speed and convenience, digital technology and high-resolution detector plates have the potential for greater image accuracy than conventional films, a critical factor in mammography. While digital mammography systems are presently several times more expensive than conventional systems, we believe they can provide long-term savings as they eliminate the recurring film costs and reduce the cost of image manipulation.

We have pursued digital mammography with both our CCD-based and our DirectRay technologies. In October 2001, we received an approvable letter from the FDA for our Lorad Full Field Digital Mammography system. The Lorad Full Field Digital Mammography system utilizes our first generation CCD-based technology. Final marketing clearance for the Lorad Full Field Digital Mammography System is subject to labeling discussions, the agreement on criteria on the use of the product and successful completion of a Good Manufacturing Practices audit by the FDA of our manufacturing facility in Bedford, Massachusetts. We are also in the advanced stages of development of a second-generation digital mammography system that incorporates our proprietary amorphous selenium DirectRay direct-to-digital technology. This system will require regulatory review by the FDA. We are currently collecting clinical data for this system as part of a premarket approval application which we expect to submit to the FDA in the first half of 2002. We expect to work closely with the FDA to bring this second-generation system to market as expeditiously as possible. To our knowledge, no other company has filed a premarket approval application for a direct-to-digital mammography system. We believe our DirectRay technology to be superior and expect that the experience gained through our CCD efforts will enhance our ability to transition to the selenium technology and to gain FDA approval for use of DirectRay in mammography.

We expect that our DirectRay direct-to-digital mammography product line under development will expand our share of the mammography market, if and when approved by the FDA. With the improved imaging of our direct-to-digital amorphous selenium technology, we believe our Lorad mammography systems will offer women one of the most advanced tools available for early detection of breast cancer.

At the present time, GE Medical Systems and Fischer Imaging Corporation have received FDA approval to commercialize their own indirect conversion digital mammography systems. We believe that to date 250 digital mammography systems have been installed worldwide. We believe that growth of the digital mammography market will accelerate as product offerings improve image quality over existing systems. We believe that, when and if approved, our DirectRay product line could be the first direct-to-digital FDA approved mammography system. We believe that it would provide excellent image quality, offer women one of the most advanced tools available for early detection of breast cancer, and therefore receive market acceptance. We intend to offer DirectRay to our existing customer base through upgrades or replacement systems. We will also seek to expand our market beyond our historic customer base with expansion of our sales force or co-distribution arrangements. We currently have over 9,500 Lorad mammography systems installed worldwide.

Mini c-arm Technology

Another of our wholly owned subsidiaries, FluoroScan Imaging Systems, is a market leader for low intensity, real time mini c-arm X-ray imaging devices that address the trend towards minimally invasive surgery. These systems provide surgeons with high-resolution images at radiation levels and at a cost well below those of conventional X-ray and fluoroscopic equipment.

Our Strategy

We are committed to returning to profitability and creating shareholder value. Following implementation of our announced restructuring plan, we are well on the way to streamlining our operations. We expect this restructuring to result in annual savings in excess of $10 million. We believe that the breadth of our product line, recent new product introductions as well as planned new product introductions position us to once again achieve sustainable growth and profitability by providing superior diagnostic and imaging systems.

Key elements of our strategy include:

Maintaining and expanding our technology leadership. Historically, we have been recognized for our technology leadership in bone densitometry assessment. We have furthered this leadership with the introduction of our Delphi product line which enables doctors to improve fracture risk assessment. In the mammography area, our Lorad M-IV is already recognized as a technology leader because of its High Transmission Cellular Imaging System, which reduces X-ray scatter, delivering superior contrast and resolution without an increase in X-ray dose. We are in the advanced stages of development of our DirectRay direct-to-digital mammography system. We expect this system to have enhanced capabilities when compared to conventional mammography systems.

Accelerate sales and market acceptance of our DirectRay, direct-to-digital technology. We have several strategies that address our plan to leverage our direct-to-digital X-ray technology. In addition to our focus on developing DirectRay technology for use in our Lorad product line, we plan to accelerate market acceptance of our direct-to-digital technology by selling our own general radiography systems, the EPEX, RADEX and chest imaging systems, as well as offering our selenium plates as upgrades to X-ray systems developed by other OEMs.

Continuing to seek partnerships, alliances and joint ventures. We intend to pursue alliances, joint ventures and other business relationships that would allow us to expand our distribution channels either for our core products outside of our established distribution network or for our less established products beyond our core markets. In addition, in connection with our DirectRay technology we intend to explore alliances, joint ventures and other business relationships that would enable us to raise capital or share ongoing research and development costs, thereby leveraging our exceptional technology base.

We were incorporated in Massachusetts in October 1985 and reincorporated in Delaware in March 1990. Our principal executive offices are located at 35 Crosby

Drive, Bedford, Massachusetts 01730-1401. Our telephone number is (781) 999-7300.

Recent Events

Results for Quarter and Year ended September 29, 2001

For the fourth quarter ended September 29, 2001, we reported a net loss of $4,928,000, or $.32 per diluted share, compared with a net loss of $10,922,000, or $.71 per diluted share, for the corresponding quarter ended September 30, 2000. Fourth quarter fiscal 2001 revenues totaled $45,262,000 compared to revenues of $27,117,000 for the corresponding three months in fiscal 2000. Included in the fourth quarter was revenue of $20,624,000 from the mammography and general radiography system businesses acquired in September 2000.

Included in the fiscal 2001 three and twelve month operating results were certain nonrecurring and restructuring items incurred in the fourth quarter. These items include:

- a restructuring charge of approximately $808,000 for severance related expenses resulting from a 10% reduction in our work force in August 2001; and

- a reassessment of reserves and final purchase accounting charge of approximately $361,000 relating to the acquisition of the U.S. assets of Trex Medical in September 2000.

Fourth quarter results included a $4,359,000 net loss in our digital radiography business. A contributing factor to this loss is our continued investment in the research and development of direct radiography systems and plates, including its ongoing efforts to develop a direct radiography full field mammography plate.

For the year ended September 29, 2001, we recognized a net loss of $20,851,000, or $1.35 per diluted share, compared with a net loss of $18,619,000, or $1.22 per diluted share, for fiscal 2000. Revenues totaled $178,491,000 for the year ended September 29, 2001, compared to revenues of $93,746,000 for fiscal 2000. Included in fiscal 2001 is revenue of $86,470,000 from our mammography and general radiography system businesses acquired in September 2000.

Fiscal 2001 operating results included the following nonrecurring and restructuring items incurred in the third quarter, in addition to those items incurred in the fourth quarter:

- a $2.9 million reduction in expenses related to the settlement of the final purchase price and reassessment of reserves from the acquisition of Trex Medical;

- the recognition of $2.1 million of other revenue, which was previously deferred, and a $500,000 reduction of cost of product sales due to excess warranty reserve. These adjustments are the result of our settlement of the litigation with Fleet Business Credit Corp. concerning rights and obligations under a Master Product Financing Agreement entered into in September 1996; and

- charges of approximately $710,000, comprised of a $510,000 nonrecurring charge related to the relocation of our FluoroScan subsidiary to our headquarters in April 2001, and a restructuring

charge of $200,000 related to a reduction in Lorad's workforce in June 2001.

Closing of Littleton Division

On November 13, 2001 we announced that we are closing our conventional X-ray equipment manufacturing facility in Littleton, Massachusetts and that we will relocate certain of our product lines and sales and service support personnel to our corporate headquarters in Bedford, Massachusetts. This action completes our previously announced plan to integrate certain of our product lines and phase-out non-core and unprofitable ones, such as the conventional radiographic systems. As a result of this consolidation, we expect to eliminate approximately 80 employees and take a restructuring charge, primarily related to severance costs, of approximately $1 million, in the first quarter of fiscal 2002. Our Littleton operations incurred signficant losses during fiscal 2001.

Foothill Working Capital Line of Credit

In September 2001, we entered into an agreement for a $25 million credit facility with Foothill Capital Corporation, a wholly-owned subsidiary of Wells Fargo & Company. We intend to draw upon this facility to fund certain of our research and development projects, particularly relating to our direct-to-digital technology, as well as general corporate purposes. As of September 29, 2001, we had borrowed approximately $2.5 million under this facility.

Strengthened Sales and Distribution Channels

During or after the fourth quarter of 2001, we entered into a number of agreements which have strengthened the sales and distribution channels for our core product lines, as follows:

- We entered into a non-exclusive distribution agreement with Siemens Medical Solutions, a unit of Siemens AG, for the sale of our X-ray bone densitometers throughout the United States. Siemens is a global leader in medical imaging technologies and we view this partnership as a first step in forging a long-term relationship with Siemens. With the Siemens relationship, we hope to increase sales of our bone densitometry line to the Siemens customer base and increase our presence in the hospital market.

- We entered into strategic alliances, which include exclusive distribution rights, with Stephanix, one of the leading French manufacturers of medical X-ray equipment, and Radiologia, S.A., the oldest X-ray equipment manufacturer in Spain, for sales of our product lines in France, Spain and Portugal.

- We entered into an agreement with Ethicon Endo-Surgery for non-exclusive distribution rights in the United States to Ethicon's minimally invasive breast biopsy device, the Mammotome ST, for purchase with Lorad's MultiCare and StereoLoc II stereotactic breast biopsy systems.

- We expanded our relationship with group purchasing organizations. We entered into an exclusive two-year contract, with options to renew for an additional two years, with Broadlane Inc., a leader in providing supply chain management services to the healthcare industry, for the sale of Lorad mammography systems. Broadlane customers include leading healthcare

providers such as Kaiser Permanente, Tenet Healthcare Corporation and Universal Health Services. We have also extended our existing agreement with HealthTrust Purchasing Group for the sale of Lorad mammography systems.

The Offering

Common Stock offered by Hologic	2,000,000 shares
Common stock to be outstanding after the offering	17,670,142 shares
Use of proceeds	For continued development of our Di mammography system, to fund researc products under development, and for working capital. See "Use of Procee
Nasdaq National Market symbol	HOLX

The number of shares of our common stock to be outstanding immediately after this offering is based on the number of shares outstanding as of September 29, 2001. It does not include:

- 3,375,959 shares of common stock issuable upon exercise of stock options outstanding at September 29, 2001, at a weighted average exercise price of $7.65 per share;
- 229,124 shares of common stock reserved for issuance pursuant to our employee stock purchase plan; and
- 1,388,612 shares of common stock reserved for issuance pursuant to stock options not yet granted under all of our stock option plans.

Summary Consolidated Financial Data

The following selected financial information should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes to those statements incorporated by reference into this prospectus supplement. The statement of operations data for each of the three years in the period ended September 30, 2000 and the balance sheet data as of September 25, 1999 and September 30, 2000 are derived from our audited financial statements incorporated by reference into this prospectus supplement. The statement of operations data for the years ended September 28, 1996 and September 27, 1997 and the balance sheet data as of September 28, 1996 and September 27, 1997 are derived from our audited financial statements not included in this prospectus supplement. The statement of operations data for the nine months ended June 30, 2000 and July 1, 2001 and the balance sheet data as of July 1, 2001 have been derived from our unaudited financial statements, which are incorporated by reference into this prospectus supplement. In our opinion, these unaudited financial statements include all adjustments consisting of only normal recurring adjustments that are necessary for a fair presentation of our financial position and results of operations for those periods. Operating results for the nine month period ended July 1, 2001 are not necessarily indicative of the results to

be expected for the fiscal year ending September 29, 2001.

Consolidated Statement of Operations Data

	Fiscal Year Ended				
	September 28, 1996	September 27, 1997	September 26, 1998	September 25, 1999	Septem 30, 20
	(in thousands, except per share data				
Revenues:					
Product Sales	$ 88,201	$ 102,781	$ 111,498	$ 81,737	$ 90,8
Other Revenue	3,390	3,908	4,066	2,403	2,8
	91,591	106,689	115,564	84,140	93,7
Costs and expenses:					
Cost of product sales	41,253	47,492	55,891	50,333	63,6
Research and development	7,283	8,527	9,778	12,664	22,1
Selling and marketing	16,504	19,448	28,589	19,658	23,8
General and administrative	9,879	8,827	10,452	10,963	16,4
Nonrecurring and restructuring charges	-	-	-	-	
Acquisition expenses	1,949	-	-	-	
(Loss) income from operations	14,723	22,395	10,854	(9,478)	(32,3
Other income (expense):					
Interest (expense) income, net	2,583	5,346	5,998	4,204	3,5
Other income (expense), net	(249)	(172)	(664)	(548)	(2
(Loss) income before provision (benefit) for income taxes	17,057	27,569	16,188	(5,822)	(29,0
Provision (benefit) for income taxes	5,700	9,840	5,800	(2,075)	(10,4
Net (loss) income	$ 11,357	$ 17,729	$ 10,388	$ (3,747)	$ (18,6
Net (loss) income per share:					
Basic	$ 0.97	$ 1.37	$ 0.78	$ (0.27)	$ (1.
Diluted	$ 0.91	$ 1.30	$ 0.75	$ (0.27)	$ (1.
Weighted average number of shares outstanding:					
Basic	11,698	12,986	13,259	13,950	15,3
Diluted	12,524	13,672	13,766	13,950	15,3

Consolidated Balance Sheet Data

	As of June 30, 2001	
	Actual	As Adjusted
Cash and cash equivalents	$ 11,908	$
Working capital	48,114	
Total assets	192,475	
Line of Credit	1,592	
Note Payable	26,550	
Total stockholders' equity	116,026	

RISK FACTORS

The common stock that is offered with this prospectus supplement involves a high degree of risk. You should carefully consider the following risk factors in addition to other information in this prospectus supplement before deciding to purchase the common stock. If any of the following risks actually occurs, our business, financial condition or results of operations could be materially and adversely affected. In such case, the trading price on our common stock could decline, and you could lose all or part of your investment.

This prospectus supplement also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus supplement.

We are incurring significant losses and cannot assure that we will become profitable.

We incurred net losses of $18.6 million in fiscal 2000 and $20.9 million in fiscal 2001. In fiscal 2000, of these losses, net losses of approximately $13.4 million were attributable to the operations of Direct Radiography Corp. and $7.8 million were attributable to charges incurred in connection with our acquisition of substantially all of the medical imaging assets of Trex Medical in September 2000. In fiscal 2001, approximately $21.4 million of these losses were attributable to the operations of Direct Radiography Corp. and $8.6 million attributable to the acquired Trex Medical businesses. Direct Radiography Corp. has had only limited sales of its products. We intend to incur significant expenses in connection with the further development and commercialization of our direct radiography plates and systems. We cannot assure that we will become profitable or that we can maintain profitability if we attain it.

Our failure to reduce our losses or obtain additional funding could result in the delay or limitation of our research and development activities or otherwise harm our business and prospects.

We are working on the research and development of several long-term

projects, with an emphasis on direct radiography plates and systems. We believe that we will require significant additional funds in order to complete the development, conduct clinical trials and achieve regulatory approvals of our direct radiography and other products under development over the next several years. Moreover, we may require additional funds for the working capital to commence the manufacture and marketing of these new products in commercial quantities, if and when approved or cleared by the regulatory authorities. If our capital requirements vary materially from those currently planned, we may require additional financing sooner than anticipated. As a result, we anticipate that we will be required to reduce our losses or obtain additional funding to support these efforts. We may need to raise capital in addition to what we are seeking in this offering through additional equity or debt financings, asset sales, collaborative arrangements or from other sources. This additional financing may not be available to us on a timely basis, if at all, or, may not be available on terms acceptable to us. If we fail to obtain acceptable additional financing, we may be required to reduce our planned expenditures, including our ongoing research and development expenditures. Such a reduction could result in the delay or limitation of our ongoing research and development projects and otherwise harm our business and prospects. Moreover, additional equity financing may cause dilution to existing stockholders.

The markets for our direct radiography products are unproven.

In 1998, our subsidiary, Direct Radiography Corp., was the first company to introduce direct-to-digital X-ray imaging products in the United States. Since that introduction, Direct Radiography Corp. has had only limited sales of its products. Moreover, the markets for these products are relatively new and remain unproven. There is a significant installed base of conventional X-ray imaging products in hospitals and radiological practices. The use of our direct-to-digital X-ray imaging products in many cases would require these potential customers to either modify or replace their existing X-ray imaging equipment. Moreover, we believe that a major factor in the market's acceptance of direct-to-digital X-ray technology is the trend toward transition by the healthcare industry from conventional film archiving systems to hospital Picture, Archive and Communication Systems, known as PACS, to store X-ray images electronically. Because the benefits of our direct-to-digital technology may not be fully realized by customers until they install a PACS platform, a large potential market for these products may not develop until PACS platform are more widely used. Because of the early stage of the markets for these products, it is likely that our evaluation of the potential markets for these products will materially vary with time. We cannot assure that any significant market will develop for our direct radiography products.

If we fail to achieve and maintain the high manufacturing standards that our direct radiography products require, we will not be successful in developing and marketing those products.

The manufacture of our direct radiography detectors is highly complex and requires precise high quality manufacturing that is difficult to achieve. We, as well as other companies developing direct radiography systems, have experienced difficulties in the manufacture of these detectors.

We obtain transistor plates for our direct radiography detectors from a sole contract manufacturer. Following our recent development of an improved design for our transistor plates, we experienced unacceptably high levels of defects for the newly designed plates. While the manufacturer has resolved the problem, and is now producing the plates to our satisfaction, we could again encounter production problems with future shipments. Moreover, further changes in design for our direct radiography detectors, including for our mammography

detectors under development, could result in other unanticipated production problems. Our initial difficulties have led to a delay in our ability to ship our new direct radiography systems and adversely affected our anticipated revenues and results of operations from sales of those systems. Our failure, including the failure of our contract manufacturers, to achieve and maintain the required high manufacturing standards could result in further delays or failures in product testing or delivery, cost overruns, product recalls or withdrawals, or other problems that could harm our business and prospects.

Our success depends on new product development.

We have a continuing research and development program designed to develop new products and to enhance and improve our products. We are expending significant resources on the development of digital X-ray imaging products, including a digital mammography product. The successful development of our products and product enhancements are subject to numerous risks, both known and unknown, including:

- unanticipated delays;
- access to capital;
- budget overruns;
- technical problems; and
- other difficulties that could result in the abandonment or substantial change in the design, development and commercialization of these new products, including, for example, changes requested by the FDA in connection with pre-market approval applications for our products or 510(k) notification.

Given the uncertainties inherent with product development and introduction, we cannot assure that any of our product development efforts will be successful on a timely basis or within budget, if at all. Our failure to develop new products and product enhancements on a timely basis or within budget could harm our business and prospects.

We are undergoing a management transition, which if not successfully implemented could harm our business and prospects.

On June 21, 2001, S. David Ellenbogen, our co-founder, Chairman and Chief Executive Officer, unexpectedly passed away. On July 31, 2001, our Board of Directors named John W. Cumming, as our Chief Executive Officer, President and a director. Mr. Cumming joined Hologic in August 2000 as Senior Vice President and President of Lorad, one of our divisions. Steve L. Nakashige, our former President, Chief Operating Officer and a director, left the Company in August 2001, and Thomas Umbel, our former Vice President, Business Development left the Company in September 2001. In addition, Glenn P. Muir, an Executive Vice President and our Chief Financial Officer, has also been appointed as a director. The management transition is occurring at a challenging time, given our recent acquisitions, ongoing development activities and losses, and involves numerous other risks and uncertainties, including:

- the diversion of management's attention;
- the ability of continuing and new management to work together effectively;
- the ability of new management to handle its new responsibilities and to quickly understand and develop and successfully implement effective strategies for the business; and

. the potential loss of key employees.

The management transition, if not successful, could harm our business and prospects.

Our business could be harmed if our products contain undetected errors or defects or do not meet customer specifications.

We are continuously developing new products and improving our existing products. Newly introduced products can contain undetected errors or defects. In addition, these products may not meet their performance specifications under all conditions or for all applications. If, despite our internal testing and testing by our customers, any of our products contains errors or defects or any of our products fails to meet customer specifications, then we may be required to enhance or improve those products or technologies. We may not be able to do so on a timely basis, if at all, and may only be able to do so at considerable expense. In addition, any significant reliability problems could result in adverse customer reaction and negative publicity and could harm our business and prospects.

The general radiography digital market is a new market which is continuing to develop and our new products for this market may not meet the needs of this market as it continues to develop.

The general radiography digital market is a new market which is continuing to develop and for which customer requirements have not been fully specified. For example, our initial specification for the first two digital products for general radiography, the EPEX and RADEX, did not fulfill all the needs of some potential customers for these systems. We have addressed these additional customer requirements through the development and release of new software for these systems. Our introduction of our EPEX and RADEX systems has also resulted in challenges to our direct sales force, which had only limited experience in marketing general radiography products. We cannot assure that we will be able to develop a successful strategy for addressing the general radiography market as it continues to develop. Our failure to do so could harm our business and prospects.

Our reliance on one or only a limited number of suppliers for some key components or subassemblies for our products could harm our business and prospects.

We rely on one or only a limited number of suppliers for some key components or subassemblies for our products. In particular we have only one source of supply for each of the panel and the coating of that panel for our direct radiography products. The supplier for the panel coating is Analogic Corporation, which is also a customer as well as a potential competitor. In addition we have only limited sources of supply for some key components used in our mini c-arm systems. Obtaining alternative sources of supply of these components could involve significant delays and other costs, and may not be available to us on reasonable terms, if at all. The failure of a component supplier or contract assembler to provide acceptable quality and timely components or assembly service at an acceptable price, or an interruption of supplies from such a supplier could harm our business and prospects. Any disruption of supplies of key components could have a temporary adverse effect on shipments which could result in lost or deferred sales.

We may not be able to compete successfully.

A number of companies have developed, or are expected to develop, products

that compete or will compete with our products. Many of these competitors offer a range of products in areas other than those in which we compete, which may make such competitors more attractive to hospitals, radiology clients, general purchasing organizations and other potential customers. In addition, many of our competitors and potential competitors are larger and have greater financial resources than we do and offer a range of products broader than our products. Some of the companies with which we now compete or may compete in the future have or may have more extensive research, marketing and manufacturing capabilities and significantly greater technical and personnel resources than we do, and may be better positioned to continue to improve their technology in order to compete in an evolving industry.

The primary competitor for our bone densitometry products is General Electric Medical Systems (GEMS). Our direct-to-digital imaging products compete with traditional X-ray systems as well as computed radiography systems, which are less expensive than our products, and other direct-to-digital systems. The larger competitors in these markets include GEMS, Siemens, Kodak, Canon and Varian. General Electric has received FDA approval to market a digital general radiography X-ray system. Another company, Fischer Imaging Corporation, recently received FDA marketing approval for its general radiography digital X-ray system. Our mammography systems compete with products offered by GEMS, Siemens, Instrumentarium and Fischer Imaging Corporation. Our minimally invasive breast-biopsy systems compete with products offered by Fischer Imaging Corporation and with conventional surgical biopsy procedures. Our mini c-arm products compete directly with mini c-arms manufactured and sold by a limited number of companies including GEMS. We also compete indirectly with manufacturers of conventional c-arm image intensifiers including Siemens and GEMS.

Our success depends upon our ability to adapt to rapid changes in technology and customer requirements.

The market for our products has been characterized by rapid technological change, frequent product introductions and evolving customer requirements. We believe that these trends will continue into the foreseeable future. Our success will depend, in part, upon our ability to enhance our existing products, successfully develop new products that meet increasing customer requirements and gain market acceptance. If we fail to do so our products may be rendered obsolete or uncompetitive by new industry standards or changing technology.

We may be unable to successfully integrate the operations of our acquisitions.

We acquired the United States business of Trex Medical in September 2000 and Direct Radiography Corp. in June 1999. Both of these acquisitions involve numerous risks generally associated with acquisitions, including:

- the diversion of management's attention;
- the assimilation of operations, personnel and products of the acquired businesses;
- the ability to manage geographically remote units; and
- the potential loss of key employees of the acquired businesses.

We may not be able to successfully integrate the operations of Trex Medical or Direct Radiography Corp. Failure to do so would harm our business and prospects.

Our failure to manage current or future alliances or joint ventures effectively may harm our business and prospects.

We are exploring potential alliances, joint ventures or other business relationships to expand our distribution channels, raise cash or share ongoing research and development costs. Potential partners most likely would include our competitors or potential competitors, and our alliance with any of them could enhance their business to our detriment. Moreover, we may not be able to:

- identify appropriate candidates for alliances or joint ventures;
- assure that any alliance or joint venture candidate will provide us with the support anticipated;
- successfully negotiate an alliance or joint venture on terms that are advantageous to us; or
- successfully manage any alliance or joint venture.

Furthermore, any alliance or joint venture may divert management time and resources. Our entering into a disadvantageous alliance or joint venture or failure to manage an alliance or joint venture effectively could harm our business and prospects.

The uncertainty of healthcare reform could adversely affect our business.

In recent years, the healthcare industry has undergone significant change driven by various efforts to reduce costs, including efforts at national healthcare reform, trends toward managed care, cuts in Medicare, consolidation of healthcare distribution companies and collective purchasing arrangements by office-based healthcare practitioners. Healthcare reform proposals and medical cost containment measures in the United States and in many foreign countries could:

- limit the use of our products;
- reduce reimbursement available for such use; or
- adversely affect the use of new therapies for which our products may be targeted.

These reforms or cost containment measures, including the uncertainty in the medical community regarding their nature and effect, could harm our business and prospects and make it difficult for us to raise additional capital on advantageous terms, if at all.

We depend on third party reimbursement to our customers for market acceptance of our products. Failure of third party payors to provide appropriate levels of reimbursement for use of our products could harm our business and prospects.

Sales of medical products largely depend on the reimbursement of patients' medical expenses by government healthcare programs and private health insurers. The costs of our products are substantial, and market acceptance of our products depends upon our customers' ability to obtain appropriate levels of reimbursement from third-party payors for use of our products. In the United States, the Health Care Finance Administration, known as HCFA, establishes guidelines for the reimbursement of healthcare providers treating Medicare and Medicaid patients. Under current HCFA guidelines, varying reimbursement levels have been established for dual X-ray and ultrasound bone density assessment, mammography and other imaging and diagnostic procedures performed by our products. The actual reimbursement amounts are determined by individual state

Medicare carriers and, for non-Medicare and Medicaid patients, private insurance carriers. There are often delays between the reimbursement approvals by HCFA and by a state Medicare carrier and private insurance carriers. Moreover, states as well as private insurance carriers may choose not to follow the HCFA reimbursement guidelines. The use of our products outside the United States is similarly affected by reimbursement policies adopted by foreign regulatory and insurance carriers. A reduction or other adverse change in reimbursement policies for the use of our products could harm our business and prospects.

The future growth of our bone densitometry business depends in large part on the continued development and more widespread acceptance of complementary therapies.

Our bone densitometers and related products are used to assist physicians in diagnosing patients at risk for osteoporosis and other bone disorders, and to monitor the effectiveness of therapies to treat these disorders. As a result, the future growth of the market for these products and of this business will in large part be dependent upon the development and more widespread acceptance of drug therapies to prevent and to treat osteoporosis. Over the last several years, the FDA has approved a number of drug therapies to treat osteoporosis. We also understand that a number of other drug therapies are under development. While sales of our bone densitometry products have benefited from the increased availability and use of these therapies, most patients who are at risk for osteoporosis continue to go untreated. We cannot assure that any therapies under development or in clinical trials will prove to be effective, obtain regulatory approval, or that any approved therapy will gain wide acceptance. Even if these therapies gain widespread acceptance, we cannot assure that such acceptance will increase the sales of our products.

Reductions in revenues could harm our operating results because a high percentage of our operating expenses is relatively fixed.

A high percentage of our operating expenses is relatively fixed. We likely will not be able to reduce spending to compensate for adverse fluctuations in revenues. As a result, shortfalls in revenues are likely to adversely effect our operating results.

Our results of operations are subject to significant quarterly variation and seasonal fluctuation.

Our results of operations have been and may continue to be subject to significant quarterly variation. The results for a particular quarter may vary due to a number of factors, including:

- the overall state of healthcare and cost containment efforts;
- the development status and demand for drug therapies to treat osteoporosis;
- the development status and demand for our direct-to-digital imaging products;
- economic conditions in our markets;
- foreign exchange rates;
- the timing of orders;
- the timing of expenditures in anticipation of future sales;

- the mix of products sold by us;

- the introduction of new products and product enhancements by us or our competitors; and

- pricing and other competitive conditions.

We also believe that our sales may be somewhat seasonal, with reduced orders in the summer months reflecting summer vacation schedules. Customers may also cancel or reschedule shipments. Production difficulties could also delay shipments. Any of these factors also could harm our business and prospects.

Our delay or inability to obtain any necessary United States or foreign regulatory clearances or approvals for our products could harm our business and prospects.

Our products are medical devices that are the subject of a high level of regulatory oversight. Our delay or inability to obtain any necessary United States or foreign regulatory clearances or approvals for our products could harm our business and prospects. The process of obtaining clearances and approvals can be costly and time-consuming. There is a risk that any approvals or clearances, once obtained, may be withdrawn or modified. Medical devices cannot be marketed in the United States without clearance or approval by the FDA. Medical devices sold in the United States must also be manufactured in compliance with FDA Good Manufacturing Practices, which regulate the design, manufacture, packing, storage and installation of medical devices. Moreover, medical devices are required to comply with FDA regulations relating to investigational research and labeling. States may also regulate the manufacture, sale and use of medical devices, particularly those that employ X-ray technology. Our products are also subject to approval and regulation by foreign regulatory and safety agencies.

Fluctuations in the exchange rates of European currencies and the other foreign currencies in which we conduct our business, in relation to the U.S. dollar, has and could continue to harm our business and prospects.

Foreign sales accounted for approximately 33% of our product sales in fiscal 2000 and 28% of our product sales in fiscal 2001. We maintain a sales and service office in Belgium and a support office in France. The expenses and sales of these offices are denominated in local currencies. We anticipate that foreign sales and sales denominated in foreign currencies will continue to account for a significant portion of our total sales. Fluctuations in the value of local currencies have caused and are likely to continue to cause, amounts translated into U.S. dollars to fluctuate in comparison with previous periods. In particular, the strength in value of the U.S. dollar to the Euro and other European currencies has resulted in an increase in price for products denominated in those currencies. We believe that these price increases have adversely affect our ability to compete in these markets. Conversely, an increase in the value of the local currencies in which we have offices would likely increase our expenses relative to U.S. dollar sales and could also harm our operating results. We have hedged our foreign currency exposure by borrowing funds in local European currencies to pay the expenses of our foreign offices. There is a risk that these hedging activities will not be successful in mitigating our foreign exchange risk exposure.

We conduct our business worldwide, which exposes us to a number of difficulties in coordinating our international activities and dealing with multiple regulatory environments.

We sell our products to customers throughout the world. Our worldwide business may be harmed by:

- difficulties in staffing and managing operations in multiple locations;

- greater difficulties in trade accounts receivable collection;
- possible adverse tax consequences;
- governmental currency controls;
- changes in various regulatory requirements;
- political and economic changes and disruptions;

- export/import controls; and
- tariff regulations.

We have experienced difficulties in collecting accounts receivable in Latin America, which as of September 29, 2001 totaled $3.3 million, including $425,000 of long-term accounts receivable included in other assets.

Our business could be harmed if we are unable to protect our proprietary technology.

We rely primarily on a combination of trade secrets, patents, copyright and trademark laws and confidentiality procedures to protect our technology. As of July 27, 2001, we had obtained 195 patents, licensed 20 patents and have pending 60 patent applications in the United States. Our patents have expiration dates ranging from 2001 to 2021. Two licensed patents with ultrasound and X-ray claims will expire in 2001. One owned patent with X-ray claims will expire in 2002. We believe that the expiration of these patents will not be material to our business. Despite these precautions, unauthorized third parties may infringe, copy or reverse engineer portions of our technology. We do not know if current or future patent applications will be issued with the scope of the claims sought, if at all, or whether any patents issued will be challenged or invalidated. In addition, we have obtained or applied for corresponding patents and patent applications in several foreign countries for some of our patents and patent applications. There is a risk that these patent applications will not be granted or that the patent or patent application will not provide significant protection for our products and technology. Our competitors may independently develop similar technology that our patents do not cover. In addition, because patent applications in the United States are not publicly disclosed until the patent is issued, applications may have been filed which relate to our technology. Moreover, there is a risk that foreign intellectual property laws will not protect our intellectual property rights to the same extent as United States intellectual property laws. In the absence of significant patent protection, we may be vulnerable to competitors who attempt to copy our products, processes or technology.

Our business could be harmed if we infringe upon the intellectual property rights of others.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device and related industries. We have been, and may be in the future, notified that we may be infringing intellectual property rights possessed by third parties. If any such claims are asserted against our intellectual property rights, we may seek to enter into royalty or licensing arrangements. There is a risk in these situations that no license will be available or that a license will not be available on reasonable terms. Alternatively, we may decide to litigate such claims or to design around the patented technology. These actions could be costly and would divert the

efforts and attention of our management and technical personnel. As a result, any infringement claims by third parties or claims for indemnification by customers resulting from infringement claims, whether or not proven to be true, may harm our business and prospects.

We may be prohibited from manufacturing and selling the Lorad prone breast-biopsy system and be required to pay significant damages if Fischer Imaging Corporation succeeds in its lawsuit against Trex Medical which alleges that the system infringes two Fischer Imaging patents.

In connection with our Trex Medical acquisition, we assumed liability for a lawsuit filed by Fischer Imaging against Trex Medical alleging that the Lorad prone biopsy system infringes upon two Fischer Imaging patents, subject to indemnification from Trex Medical and its parent, Thermo Electron Corporation, for any damages up to our adjusted purchase price for the Trex Medical assets. In connection with this arrangement, Trex Medical is continuing to defend this lawsuit. Recently, Fischer Imaging filed a lawsuit against us in connection with our sales of this product. We believe that Trex Medical and Thermo Electron are also obligated to indemnify us in connection with this lawsuit, and we anticipate that they will defend this lawsuit also. If Trex Medical is unsuccessful in defending these lawsuits, we may be prohibited from manufacturing and selling the prone-breast biopsy system without a license from Fischer Imaging and Fischer Imaging could be awarded significant damages. If a license were required, we cannot assure that we would be able to obtain one on commercially reasonable terms, if at all. Moreover, if Fischer Imaging were awarded damages, we cannot assure that our indemnification from Trex Medical and Thermo Electron, if any, would be sufficient to cover the amount of the award. A significant award above the indemnification amount actually received could harm our business and prospects.

Our future success will depend on the continued services of our key personnel.

The loss of any of our key personnel, particularly our key research and development personnel could harm our business and prospects. Our success will also depend upon our ability to attract and retain other qualified managerial and technical personnel. Competition for such personnel, particularly software engineers and other technical personnel, is intense. We may not be able to

attract and retain personnel necessary for the development of our business. We do not have any key man life insurance for any of our officers or other key personnel.

There is a risk that our insurance will not be sufficient to protect us from product liability claims, or that in the future product liability insurance will not be available to us at a reasonable cost, if at all.

Our business involves the risk of product liability claims inherent to the medical device business. We maintain product liability insurance subject to certain deductibles and exclusions. There is a risk that our insurance will not be sufficient to protect us from product liability claims, or that product liability insurance will not be available to us at a reasonable cost, if at all. An underinsured or uninsured claim could harm our operating results or financial condition.

Risks associated with hazardous materials and products.

Our research and development involves the controlled use of hazardous materials, such as toxic and carcinogenic chemicals and various radioactive compounds. Although we believe that our safety procedures for handling and

disposing of such materials comply with the standards prescribed by federal, state and local regulations, we cannot completely eliminate the risk of accidental contamination or injury from these materials. In the event of this type of accident, we could be held liable for any resulting damages, and any such liability could be extensive. We are also subject to substantial regulation relating to occupational health and safety, environmental protection, hazardous substance control, and waste management and disposal. The failure to comply with such regulations could subject us to, among other things, fines and criminal liability.

Provisions in our Certificate of Incorporation and By-laws and our stockholder rights plan may have the effect of discouraging advantageous offers for our business or common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

Our Certificate of Incorporation, By-laws and the provisions of Delaware corporate law include provisions that may have the effect of discouraging or preventing a change in control. In addition, we have a stockholder rights plan that may have the effect of discouraging or preventing a change in control. These provisions could limit the price that our stockholders might receive in the future for shares of our common stock.

The volatility of our stock price could adversely affect your investment in our common stock.

The market price of our common stock has been, and may continue to be, highly volatile. We believe that a variety of factors could cause the price of our common stock to fluctuate, perhaps substantially, including:

- announcements and rumors of developments related to our business;
- quarterly fluctuations in our actual or anticipated operating results and order levels;
- general conditions in the worldwide economy;
- announcements of technological innovations;
- new products or product enhancements by us or our competitors;
- developments in patents or other intellectual property rights and litigation; and
- developments in our relationships with our customers and suppliers.

In addition, in recent years the stock market in general and the markets for shares of small capitalization and "high-tech" companies in particular, have experienced extreme price fluctuations which have often been unrelated to the operating performance of affected companies. Any such fluctuations in the future could adversely affect the market price of our common stock, and the market price of our common stock may decline.

Future sales of our common stock may cause our stock price to decline.

Substantially all of our outstanding shares of common stock are freely tradable without restriction or further registration. Affiliates must sell all shares they own in compliance with the volume and other requirements of Rule 144, except for the holding period requirements. Nevertheless, sales of substantial amounts of common stock by our shareholders, including purchasers in

this offering, or even the potential for such sales, may have an adverse effect on the market price of our common stock and could impair our ability to raise capital through the sale of our equity securities.

Management will have broad discretion in how we use the proceeds of this offering, and we may not use these proceeds effectively.

Our management will have considerable discretion in the application of the net proceeds of this offering, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our profitability or our market value.

PRICE RANGE OF COMMON STOCK

Our common stock is traded on the Nasdaq National Market under the symbol "HOLX." The following table sets forth, for the periods indicated, the high and low sales prices per share of common stock, as reported by the Nasdaq National Market.

Fiscal Year Ended September 30, 2000	High	Low
First Quarter	$6.75	$3.06
Second Quarter	9.81	5.69
Third Quarter	7.81	5.56
Fourth Quarter	8.88	6.88
Fiscal Year Ended September 29, 2001		
First Quarter	$7.06	$4.66
Second Quarter	7.19	4.00
Third Quarter	6.80	4.00
Fourth Quarter	6.60	4.62
Fiscal Year Ending September 30, 2002		
First Quarter (through November 15, 2001)	$10.94	$5.00

The last reported sale price of the common stock on the Nasdaq National Market on November 15, 2001 was $9.92 per share. As of November ___, 2001, there were approximately _____ holders of record of our common stock.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of the 2,000,000 shares of common stock we are offering will be approximately $18,400,000 million. If the underwriter fully exercises the over-allotment option, the net proceeds to us will be approximately $21,200,000 million. "Net proceeds" is what we expect to receive based on an assumed public offering price of $9.92 per share and after we pay the underwriting discount and other estimated expenses for this offering.

We expect to use the net proceeds of this offering to fund the continued development of our DirectRay direct-to-digital mammography system, including conducting clinical trials and working toward regulatory approvals, as well as to fund research and development of other products and for general corporate purposes and working capital. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses we will have for the net proceeds upon completion of this offering. Accordingly, our management will have broad discretion in the application of the net proceeds.

Pending these uses, we intend to invest the net proceeds in interest-bearing, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States.

CAPITALIZATION

The following table sets forth our capitalization as of June 30, 2001, on an actual basis and as adjusted to give effect to the receipt by us of the estimated net proceeds from the sale of ____ shares of common stock at an assumed offering price of $___ and after deducting underwriting discounts and estimated offering expenses.

	Actual	As
	(in thousands exce	
Cash and cash equivalents	$ 11,908	
Line of credit	1,592	
Note payable	26,550	
Stockholders' equity:		
Preferred Stock, $0.01 par value - 1,623,000 shares authorized, none issued and outstanding	--	
Common Stock, $0.01 par value - 30,000,000 shares authorized, 15,524,000 shares issued and outstanding	155	
Capital in excess of par value	110,719	
Retained earnings	7,899	
Accumulated other comprehensive loss	(2,283)	
Treasury stock, at cost - 45 shares	(464)	
Total stockholders' equity	116,026	
Total capitalization	$144,168	

DILUTION

At June 30, 2001, we had a net tangible book value of $87,027,000 or approximately $5.62 per share of common stock. Net tangible book value per share represents the amount of our tangible assets less our total liabilities, divided by the number of outstanding shares of our common stock.

Net tangible book value dilution per share represents the difference between the amount per share paid by purchasers of shares of common stock in the offering pursuant to this prospectus and the pro forma net tangible book value per share of common stock immediately after completion of the offering. After giving effect to the sale of 2,000,000 shares of common stock in this offering at an assumed offering price of $9.92 per share and the application of the estimated net proceeds therefrom (after deducting estimated offering expenses), but without taking into account any other changes in our net tangible book value after June 30, 2001, our pro forma net tangible book value as of June 30, 2001 would have been $105,427,000, or $6.03 per share. This represents an immediate increase in net tangible book value of $0.41 per share to existing stockholders and an immediate dilution in net tangible book value of $3.89 per share to purchasers of common stock in the offering, as illustrated in the table below.

Assumed public offering price per share		$9.92
Net tangible book value per share before the offering	$ 5.62	
Increase per share attributable to new investors	.41	
Pro forma net tangible book value per share after the offering		6.03
Dilution per share to new investors		$3.89

EXECUTIVE OFFICERS

The following is a list of all current executive officers of Hologic, Inc. with their ages as of September 29, 2001.

Name	Age	Position
John W. Cumming	55	Chief Executive Officer, President and Director
Jay A. Stein	59	Chairman of the Board, [Executive Vice President,][Chief Technical Officer
Glenn P. Muir	42	Executive Vice President, Finance and Administratio Treasurer and Director
Mark A. Duerst	45	Senior Vice President, Worldwide Sales and Marketin
Peter C. Kershaw	48	Vice President and General Manager, LORAD
John MacLennan	49	Vice President and General Manager, Hologic Systems Fluoroscan
Peter Soltani	40	Vice President and General Manager, Direct Radiogra Corp.
Eric von Stetten	39	Vice President and General Manager, Osteoporosis Assessment

Mr. Cumming was appointed to the position of Chief Executive Officer, President and director in July 2001 by our Board of Directors. Prior to that,

Mr. Cumming held the position of Senior Vice President and President, Lorad, since joining us in August 2000. Prior to joining us, Mr. Cumming served as President and Managing Director of Health Care Markets Group, a strategic advisory and investment banking firm he founded in 1984. Prior to forming Health Care Markets Group, Mr. Cumming was Vice President/Division Manager for Elscint, Inc., a full line manufacturer of diagnostic imaging equipment. He became a member of Elscint's management team through the acquisition of Xonics Medical Systems in 1983, where he served as Director of Sales & Marketing. Mr. Cumming joined Xonics through the acquisition of Radiographic Development (medical imaging), where he served as Vice President, Sales & Marketing. Mr. Cumming currently serves on the Board of Directors of Vascular Genetics, a gene therapy company focusing on coronary artery disease, MRPnet, Inc., an internet application provider to the healthcare industry, Century Capital, an investment banking firm specializing in the biosciences field, and Health Care Markets Group.

Dr. Stein, a co-founder and our Chief Technical Officer, has served as our Executive or Senior Vice President, Chief Technical Officer and a director since our organization in October 1985 and as Chairman of our Board of Directors since June 2001. Prior to co-founding us, Dr. Stein served as Vice President and Technical Director of Diagnostic Technology, Inc. (DTI), which he co-founded with Mr. Ellenbogen in 1981. DTI, which developed an X-ray product for digital angiography, was acquired in 1982 by Advanced Technology Laboratories, Inc. (ATL), a wholly-owned subsidiary of Squibb Corporation. Dr. Stein served as Technical Director of the digital angiography group of its successor, ATL, from 1982 to 1985. Dr. Stein received a Ph.D. in Physics from The Massachusetts Institute of Technology. He is the principal author of fifteen patents involving X-ray technology. From July 1989 to January 2000, Dr. Stein was also the Senior Vice President, Technical Director and a director of Vivid Technologies, Inc. pursuant to a management agreement between us and Vivid. On January 13, 2000, PerkinElmer completed the purchase of Vivid and Dr. Stein relinquished all positions and duties with Vivid.

Mr. Muir, a Certified Public Accountant, was appointed to our Board of Directors in July 2001, and has held the position of Executive Vice President of Finance and Administration and Treasurer since September 2000. Prior to that, Mr. Muir served as Vice President of Finance and Treasurer since February 1992 and Controller since joining us in October 1988. From 1986 to 1988, Mr. Muir was Vice President of Finance and Administration and Chief Financial Officer of Metallon Engineered Materials Corp., a manufacturer of composite materials. Mr. Muir received an MBA from the Harvard Graduate School of Business Administration in 1986.

Mr. Duerst was appointed to the position of Senior Vice President and General Manager, Worldwide Sales in April 2001. Prior to that, Mr. Duerst served as Senior Vice President and General Manager of International Sales from September 2000, served as Vice President of Sales from 1994 to 2000 and in other sales management positions since joining us in 1989. From 1988 to 1989, Mr. Duerst was an independent marketing and sales consultant and from 1983 to 1987 he was Director of Sales and Marketing of Lunar Corporation.

Mr. Kershaw was appointed Vice President and General Manager, Lorad in July 2001. Prior to joining us, Mr. Kershaw was President of Bespak Medical Device Division from 1998 to 2001 and held the position of Vice President and General Manager from 1996 to 1998. From 1991 to 1996, Mr. Kershaw was Vice President of Operations at Bard Cardiology, a division of C.R. Bard and served as Director of Manufacturing from 1989 to 1991. Prior to joining the Board, Mr. Kershaw was with Johnson & Johnson Orthopedics serving in a variety of engineering and manufacturing management roles from 1982 to 1989.

Mr. MacLennan was appointed Vice President and General Manager of our Hologic Systems Division and FluoroScan in May 2001. Prior to that, Mr.

MacLennan held the position of Vice President and General Manager, FluoroScan, since joining us in 1997. Prior to joining us, Mr. MacLennan was Vice President and General Manager of the Medical Division of Del Global Technologies, formerly known as GENDEX Medical, from April 1996 to May 1997. From May 1990 to April 1996, Mr. MacLennan served as Vice President, Sales and Marketing for GENDEX Medical. Mr. MacLennan received an MBA from Baldwin Wallace College.

Dr. Soltani joined us in November 2000 as Vice President and General Manager of Direct Radiography Corp., a company of ours. Prior to joining us, Dr. Soltani served as General Manager, NDT Business Group, Digital Systems at AGFA Corporation from 1999 to November 2000. From 1994 to 1999, Dr. Soltani served as General Manager, Imaging Systems Division of Liberty Technologies, a division of Crane Nuclear, Inc. Prior to joining Liberty Technologies, Dr. Soltani was with Quantex Corporation, serving as Vice President, Technology from 1992 to 1994, Director, Product Development, from 1990 to 1992 and as a Senior Staff Scientist from 1986 to 1990. Dr. Soltani is the principal author or co-author of a number of patents related to digital imaging technologies and has published numerous articles on digital imaging. Dr. Soltani received a Ph.D. in Materials Engineering from the University of Maryland in 1994.

Dr. von Stetten has held numerous positions with us since joining us in 1990. Dr. von Stetten was appointed to his current position of Vice President and General Manager, Osteoporosis Assessment in September 2000 and served as Scientific Director for our bone densitometry products from 1999 to 2000. Prior to being Scientific Director, Dr. von Stetten held the position of Director, Ultrasound Technologies from 1996 to 1999 and Principal Scientist from 1993 to 1996. Dr. von Stetten is the principal author or co-author of several patents related to osteoporosis testing devices and has published numerous papers on osteoporosis assessment technologies. Dr. von Stetten received a Ph.D. in Experimental Solid State Physics from Brandeis University in 1990.

UNDERWRITING

We have entered into an underwriting agreement with Needham & Company, Inc. Subject to the terms and conditions of the underwriting agreement, the underwriter has agreed to purchase from us 2,000,000 shares.

The underwriter has advised us that it proposes to offer the shares of common stock to the public at the public offering price per share set forth on the cover page of this prospectus supplement. The underwriter may offer shares to securities dealers, who may include the underwriter, at that public offering price less a concession of up to $ per share. The underwriter may allow, and those dealers may reallow, a concession to other securities dealers of up to $ per share. After the offering to the public, the offering price and other selling terms may be changed by the underwriter.

We have granted an option to the underwriter to purchase up to 300,000 additional shares of common stock at the public offering price per share, less the underwriting discounts and commissions, set forth on the cover page of this prospectus supplement. This option is exercisable during the 30-day period after the date of this prospectus supplement. The underwriter may exercise this option only to cover over-allotments made in connection with this offering.

The following table shows the per share and total underwriting discount to be paid to the underwriter by us. These amounts are shown assuming both no exercise and full exercise of the underwriter's option to purchase additional shares.

Total

	Per Share	No Exercise	Full Exercise
Paid by Hologic	$_____	$_____	$_____

We estimate that the total expenses of the offering, excluding the underwriting discount and commissions, will be approximately $250,000.

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

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

In connection with this offering, the underwriter may engage in transactions that stabilize, maintain, or otherwise affect the price of our common stock. Specifically, the underwriter may over-allot in connection with this offering by selling more shares than are set forth on the cover page of this prospectus supplement. This creates a short position in our common stock for their own account. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shared over-allotted by the underwriter is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. To close out a short position or to stabilize the price of our common stock, the underwriter may bid for, and purchase, common stock in the open market. The underwriter may also elect to reduce any short position by exercising all or part of the over-allotment option. In determining the source of shares to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. If the underwriter sells more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely effect investors who purchase in the offering.

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

Finally, the underwriter may bid for, and purchase, shares of our common stock in market making transactions.

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

LEGAL MATTERS

The validity of the shares of common stock to be sold in this offering will be passed upon for us by Brown, Rudnick, Freed & Gesmer, Boston, Massachusetts. Certain legal matters for the underwriter will be passed upon by Pillsbury Winthrop LLP, San Francisco, California.

EXPERTS

The consolidated financial statements of Hologic, Inc., as of September 25, 1999 and September 30, 2000 and for each of the three years in the period ended September 30, 2000 incorporated by reference in this prospectus supplement and in the registration statement have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their reports with respect thereto, and are incorporated by reference in reliance upon the authority of such firm as experts in giving such report.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (SEC). See "Where You Can Find More Information" in the accompanying prospectus for information on the documents we incorporate by reference in this prospectus supplement and the accompanying prospectus.

You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus. We have authorized no one to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus supplement and the accompanying prospectus is accurate as of any date other than the date on the front of these documents.

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+ THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE   +
+ MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH   +
+ THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT +
+ AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY   +
+ THESE SECURITIES IN ANY STATE OR JURISDICTION WHERE THE OFFER OR SALE IS NOT +
+ PERMITTED.   +
++

Subject to Completion,
Dated November 16, 2001

HOLOGIC, INC.

COMMON STOCK

3,000,000 SHARES

This is a public offering of shares of the common stock of Hologic, Inc. This means that from time to time:

- we may offer and issue shares of common stock in varying amounts and at prices and on terms to be determined at the time of sale;
- we will provide a prospectus supplement each time we sell such common stock; and
- the prospectus supplement will describe the offering and the terms of each such sale.

We will receive all of the proceeds from such sales.

We may offer the securities directly or through agents or to or through underwriters or dealers. If any agents or underwriters are involved in the sale of the securities, their names, and any applicable purchase price, fee, commission or discount arrangement between or among them, will be set forth, or will be calculable from the information set forth, in an accompanying prospectus supplement. We can then sell the securities through agents, underwriters or dealers only with delivery of a prospectus supplement describing the method and terms of the offering of such securities. See "Plan of Distribution."

Our common stock is quoted on the Nasdaq National Market under the symbol "HOLX". On November 15, 2001, the last reported sale price of the common stock on the Nasdaq National Market was $9.92 per share.

INVESTING IN THE SECURITIES OFFERED HEREBY INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 2.

THE SECURITIES AND EXCHANGE COMMISSION AND STATE SECURITIES REGULATORS HAVE NOT APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is _____, 2001.

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS DOCUMENT OR TO WHICH WE HAVE REFERRED YOU. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION THAT IS DIFFERENT. THIS DOCUMENT MAY BE USED ONLY WHERE IT IS LEGAL TO SELL THESE SECURITIES. THE INFORMATION IN THIS DOCUMENT MAY ONLY BE ACCURATE ON THE DATE OF THIS DOCUMENT.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained in this prospectus, the accompanying prospectus supplement and in the documents incorporated by reference, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended. These statements involve known and unknown risks, uncertainties and other factors which may cause our or our industry's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to statements regarding:

- our goal of returning to profitability;
- our goal of expanding our market positions;
- the development of new competitive technologies and products;
- regulatory approval and clearances for our products;
- market acceptance of new products;
- business strategies;
- dependence on significant suppliers;
- dependence on significant distributors and customers;
- the availability of debt and equity financing;
- general economic conditions; and
- our financial condition or results of operations.

In some cases, you can identify forward-looking statements by terms such as "may," will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and similar expressions intended to identify forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading "Risk Factors." Also, these forward-looking statements represent our estimates and assumptions only as of the date of this prospectus.

You should read this prospectus, the accompanying prospectus supplement and the documents that we incorporate by reference completely and with the understanding that our actual future results may be materially different from what we expect. We may not update these forward-looking statements, even though our situation may change in the future. We qualify all of our forward-looking statements by these cautionary statements.

PROSPECTUS SUMMARY

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission using a "shelf" registration or

continuous offering process. We may from time to time sell the shares of common stock set forth in this prospectus in one or more offerings up to an aggregate of 3,000,000 shares of common stock.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities we will provide you with a prospectus supplement containing specific information about the terms of such sale. The prospectus supplement also may add, update or change information in this prospectus. If there is any inconsistency between the information in the prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information" beginning on page 3 of this prospectus.

Unless otherwise indicated or unless the context otherwise requires, all references in this prospectus to "we," "us," or similar references mean Hologic, Inc. and its subsidiaries.

You should rely on the information contained in this prospectus or in a prospectus supplement or amendment. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. We may offer to sell, and seek offers to buy shares of our common stock only in jurisdictions where such offers and sales are permitted. The information contained in this prospectus or a prospectus supplement or amendment or incorporated herein by reference is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock.

About Hologic

We are a leading developer, manufacturer and supplier of diagnostic and medical imaging systems primarily serving the healthcare needs of women. We focus our resources on developing systems and subsystems offering superior image quality and diagnostic accuracy, which has enabled us to capture significant market shares and customer loyalty, despite the presence of large competitors. Our core women's healthcare business units are focused on bone densitometry, mammography and breast biopsy and on developing a direct-to-digital X-ray mammography system. Our bone densitometry product line and our Lorad line of mammography systems are premier brands in their markets. In addition, we develop, manufacture and supply other X-ray based imaging systems, such as general purpose direct-to-digital X-ray equipment and mini c-arm imaging products. Our customers are hospitals, imaging clinics and private practices and include many of the leading healthcare organizations in the world. Our customers are also major pharmaceutical companies who use our products in conducting clinical trials.

We were incorporated in Massachusetts in October 1985 and reincorporated in Delaware in March 1990. Our principal executive offices are located at 35 Crosby Drive, Bedford, Massachusetts 01730-1401. Our telephone number is (781) 999-7300.

RISK FACTORS

The common stock that is offered with this prospectus involves a high

degree of risk. You should carefully consider the following risk factors in addition to other information in this prospectus before deciding to purchase the common stock. If any of the following risks actually occurs, our business, financial condition or results of operations could be materially and adversely affected. In such case, the trading price on our common stock could decline, and you could lose all or part of your investment.

This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus supplement.

We are incurring significant losses and cannot assure that we will become profitable.

We incurred net losses of $18.6 million in fiscal 2000 and $20.9 million in fiscal 2001. In fiscal 2000, of these losses, net losses of approximately $13.4 million were attributable to the operations of Direct Radiography Corp. and $7.8 million were attributable to charges incurred in connection with our acquisition of substantially all of the medical imaging assets of Trex Medical in September 2000. In fiscal 2001, approximately $21.4 million of these losses were attributable to the operations of Direct Radiography Corp. and $8.6 million attributable to the acquired Trex Medical businesses. Direct Radiography Corp. has had only limited sales of its products. We intend to incur significant expenses in connection with the further development and commercialization of our direct radiography plates and systems. We cannot assure that we will become profitable or that we can maintain profitability if we attain it.

Our failure to reduce our losses or obtain additional funding could result in the delay or limitation of our research and development activities or otherwise harm our business and prospects.

We are working on the research and development of several long-term projects, with an emphasis on direct radiography plates and systems. We believe that we will require significant additional funds in order to complete the development, conduct clinical trials and achieve regulatory approvals of our direct radiography and other products under development over the next several years. Moreover, we may require additional funds for the working capital to commence the manufacture and marketing of these new products in commercial quantities, if and when approved or cleared by the regulatory authorities. If our capital requirements vary materially from those currently planned, we may require additional financing sooner than anticipated. As a result, we anticipate that we will be required to reduce our losses or obtain additional funding to support these efforts. We may need to raise capital in addition to what we are seeking in this offering through additional equity or debt financings, asset sales, collaborative arrangements or from other sources. This additional financing may not be available to us on a timely basis, if at all, or, may not be available on terms acceptable to us. If we fail to obtain acceptable additional financing, we may be required to reduce our planned expenditures, including our ongoing research and development expenditures. Such a reduction could result in the delay or limitation of our ongoing research and development projects and otherwise harm our business and prospects. Moreover, additional equity financing may cause dilution to existing stockholders.

The markets for our direct radiography products are unproven.

In 1998, our subsidiary, Direct Radiography Corp., was the first company to introduce direct-to-digital X-ray imaging products in the United States. Since that introduction, Direct Radiography Corp. has had only limited sales of its products. Moreover, the markets for these products are relatively new and remain unproven. There is a significant installed base of conventional X-ray imaging

products in hospitals and radiological practices. The use of our direct-to-digital X-ray imaging products in many cases would require these potential customers to either modify or replace their existing X-ray imaging equipment. Moreover, we believe that a major factor in the market's acceptance of direct-to-digital X-ray technology is the trend toward transition by the healthcare industry from conventional film archiving systems to hospital Picture, Archive and Communication Systems, known as PACS, to store X-ray images electronically. Because the benefits of our direct-to-digital technology may not be fully realized by customers until they install a PACS platform, a large potential market for these products may not develop until PACS platform are more widely used. Because of the early stage of the markets for these products, it is likely that our evaluation of the potential markets for these products will materially vary with time. We cannot assure that any significant market will develop for our direct radiography products.

If we fail to achieve and maintain the high manufacturing standards that our direct radiography products require, we will not be successful in developing and marketing those products.

The manufacture of our direct radiography detectors is highly complex and requires precise high quality manufacturing that is difficult to achieve. We, as well as other companies developing direct radiography systems, have experienced difficulties in the manufacture of these detectors.

We obtain transistor plates for our direct radiography detectors from a sole contract manufacturer. Following our recent development of an improved design for our transistor plates, we experienced unacceptably high levels of defects for the newly designed plates. While the manufacturer has resolved the problem, and is now producing the plates to our satisfaction, we could again encounter production problems with future shipments. Moreover, further changes in design for our direct radiography detectors, including for our mammography detectors under development, could result in other unanticipated production problems. Our initial difficulties have led to a delay in our ability to ship our new direct radiography systems and adversely affected our anticipated revenues and results of operations from sales of those systems. Our failure, including the failure of our contract manufacturers, to achieve and maintain the required high manufacturing standards could result in further delays or failures in product testing or delivery, cost overruns, product recalls or withdrawals, or other problems that could harm our business and prospects.

Our success depends on new product development.

We have a continuing research and development program designed to develop new products and to enhance and improve our products. We are expending significant resources on the development of digital X-ray imaging products, including a digital mammography product. The successful development of our products and product enhancements are subject to numerous risks, both known and unknown, including:

- unanticipated delays;
- access to capital;
- budget overruns;
- technical problems; and
- other difficulties that could result in the abandonment or substantial change in the design, development and commercialization of these new

products, including, for example, changes requested by the FDA in connection with pre-market approval applications for our products or 510(k) notification.

Given the uncertainties inherent with product development and introduction, we cannot assure that any of our product development efforts will be successful on a timely basis or within budget, if at all. Our failure to develop new products and product enhancements on a timely basis or within budget could harm our business and prospects.

We are undergoing a management transition, which if not successfully implemented could harm our business and prospects.

On June 21, 2001, S. David Ellenbogen, our co-founder, Chairman and Chief Executive Officer, unexpectedly passed away. On July 31, 2001, our Board of Directors named John W. Cumming, as our Chief Executive Officer, President and a director. Mr. Cumming joined Hologic in August 2000 as Senior Vice President and President of Lorad, one of our divisions. Steve L. Nakashige, our former President, Chief Operating Officer and a director, left the Company in August 2001, and Thomas Umbel, our former Vice President, Business Development left the Company in September 2001. In addition, Glenn P. Muir, an Executive Vice President and our Chief Financial Officer, has also been appointed as a director. The management transition is occurring at a challenging time, given our recent acquisitions, ongoing development activities and losses, and involves numerous other risks and uncertainties, including:

- the diversion of management's attention;
- the ability of continuing and new management to work together effectively;
- the ability of new management to handle its new responsibilities and to quickly understand and develop and successfully implement effective strategies for the business; and
- the potential loss of key employees.

The management transition, if not successful, could harm our business and prospects.

Our business could be harmed if our products contain undetected errors or defects or do not meet customer specifications.

We are continuously developing new products and improving our existing products. Newly introduced products can contain undetected errors or defects. In addition, these products may not meet their performance specifications under all conditions or for all applications. If, despite our internal testing and testing by our customers, any of our products contains errors or defects or any of our products fails to meet customer specifications, then we may be required to enhance or improve those products or technologies. We may not be able to do so on a timely basis, if at all, and may only be able to do so at considerable expense. In addition, any significant reliability problems could result in adverse customer reaction and negative publicity and could harm our business and prospects.

The general radiography digital market is a new market which is continuing to develop and our new products for this market may not meet the needs of this market as it continues to develop.

The general radiography digital market is a new market which is continuing to develop and for which customer requirements have not been fully specified. For example, our initial specification for the first two digital products for general radiography, the EPEX and RADEX, did not fulfill all the needs of some potential customers for these systems. We have addressed these additional customer requirements through the development and release of new software for these systems. Our introduction of our EPEX and RADEX systems has also resulted in challenges to our direct sales force, which had only limited experience in marketing general radiography products. We cannot assure that we will be able to develop a successful strategy for addressing the general radiography market as it continues to develop. Our failure to do so could harm our business and prospects.

Our reliance on one or only a limited number of suppliers for some key components or subassemblies for our products could harm our business and prospects.

We rely on one or only a limited number of suppliers for some key components or subassemblies for our products. In particular we have only one source of supply for each of the panel and the coating of that panel for our direct radiography products. The supplier for the panel coating is Analogic Corporation, which is also a customer as well as a potential competitor. In addition we have only limited sources of supply for some key components used in our mini c-arm systems. Obtaining alternative sources of supply of these components could involve significant delays and other costs, and may not be available to us on reasonable terms, if at all. The failure of a component supplier or contract assembler to provide acceptable quality and timely components or assembly service at an acceptable price, or an interruption of supplies from such a supplier could harm our business and prospects. Any disruption of supplies of key components could have a temporary adverse effect on shipments which could result in lost or deferred sales.

We may not be able to compete successfully.

A number of companies have developed, or are expected to develop, products that compete or will compete with our products. Many of these competitors offer a range of products in areas other than those in which we compete, which may make such competitors more attractive to hospitals, radiology clients, general purchasing organizations and other potential customers. In addition, many of our competitors and potential competitors are larger and have greater financial resources than we do and offer a range of products broader than our products. Some of the companies with which we now compete or may compete in the future have or may have more extensive research, marketing and manufacturing capabilities and significantly greater technical and personnel resources than we do, and may be better positioned to continue to improve their technology in order to compete in an evolving industry.

The primary competitor for our bone densitometry products is General Electric Medical Systems (GEMS). Our direct-to-digital imaging products compete with traditional X-ray systems as well as computed radiography systems, which are less expensive than our products, and other direct-to-digital systems. The larger competitors in these markets include GEMS, Siemens, Kodak, Canon and Varian. General Electric has received FDA approval to market a digital general radiography X-ray system. Another company, Fischer Imaging Corporation, recently received FDA marketing approval for its general radiography digital X-ray system. Our mammography systems compete with products offered by GEMS, Siemens, Instrumentarium and Fischer Imaging Corporation. Our minimally invasive breast-biopsy systems compete with products offered by Fischer Imaging Corporation and with conventional surgical biopsy procedures. Our mini c-arm products compete directly with mini c-arms manufactured and sold by a limited number of companies including GEMS. We also compete indirectly with manufacturers of conventional c-arm image intensifiers including Siemens and GEMS.

Our success depends upon our ability to adapt to rapid changes in technology and customer requirements.

The market for our products has been characterized by rapid technological change, frequent product introductions and evolving customer requirements. We believe that these trends will continue into the foreseeable future. Our success will depend, in part, upon our ability to enhance our existing products, successfully develop new products that meet increasing customer requirements and gain market acceptance. If we fail to do so our products may be rendered obsolete or uncompetitive by new industry standards or changing technology.

We may be unable to successfully integrate the operations of our acquisitions.

We acquired the United States business of Trex Medical in September 2000 and Direct Radiography Corp. in June 1999. Both of these acquisitions involve numerous risks generally associated with acquisitions, including:

- the diversion of management's attention;
- the assimilation of operations, personnel and products of the acquired businesses;
- the ability to manage geographically remote units; and
- the potential loss of key employees of the acquired businesses.

We may not be able to successfully integrate the operations of Trex Medical or Direct Radiography Corp. Failure to do so would harm our business and prospects.

Our failure to manage current or future alliances or joint ventures effectively may harm our business and prospects.

We are exploring potential alliances, joint ventures or other business relationships to expand our distribution channels, raise cash or share ongoing research and development costs. Potential partners most likely would include our competitors or potential competitors, and our alliance with any of them could enhance their business to our detriment. Moreover, we may not be able to:

- identify appropriate candidates for alliances or joint ventures;
- assure that any alliance or joint venture candidate will provide us with the support anticipated;
- successfully negotiate an alliance or joint venture on terms that are advantageous to us; or
- successfully manage any alliance or joint venture.

Furthermore, any alliance or joint venture may divert management time and resources. Our entering into a disadvantageous alliance or joint venture or failure to manage an alliance or joint venture effectively could harm our business and prospects.

The uncertainty of healthcare reform could adversely affect our business.

In recent years, the healthcare industry has undergone significant change

driven by various efforts to reduce costs, including efforts at national healthcare reform, trends toward managed care, cuts in Medicare, consolidation of healthcare distribution companies and collective purchasing arrangements by office-based healthcare practitioners. Healthcare reform proposals and medical cost containment measures in the United States and in many foreign countries could:

- limit the use of our products;
- reduce reimbursement available for such use; or
- adversely affect the use of new therapies for which our products may be targeted.

These reforms or cost containment measures, including the uncertainty in the medical community regarding their nature and effect, could harm our business and prospects and make it difficult for us to raise additional capital on advantageous terms, if at all.

We depend on third party reimbursement to our customers for market acceptance of our products. Failure of third party payors to provide appropriate levels of reimbursement for use of our products could harm our business and prospects.

Sales of medical products largely depend on the reimbursement of patients' medical expenses by government healthcare programs and private health insurers. The costs of our products are substantial, and market acceptance of our products depends upon our customers' ability to obtain appropriate levels of reimbursement from third-party payors for use of our products. In the United States, the Health Care Finance Administration, known as HCFA, establishes guidelines for the reimbursement of healthcare providers treating Medicare and Medicaid patients. Under current HCFA guidelines, varying reimbursement levels have been established for dual X-ray and ultrasound bone density assessment, mammography and other imaging and diagnostic procedures performed by our products. The actual reimbursement amounts are determined by individual state Medicare carriers and, for non-Medicare and Medicaid patients, private insurance carriers. There are often delays between the reimbursement approvals by HCFA and by a state Medicare carrier and private insurance carriers. Moreover, states as well as private insurance carriers may choose not to follow the HCFA reimbursement guidelines. The use of our products outside the United States is similarly affected by reimbursement policies adopted by foreign regulatory and insurance carriers. A reduction or other adverse change in reimbursement policies for the use of our products could harm our business and prospects.

The future growth of our bone densitometry business depends in large part on the continued development and more widespread acceptance of complementary therapies.

Our bone densitometers and related products are used to assist physicians in diagnosing patients at risk for osteoporosis and other bone disorders, and to monitor the effectiveness of therapies to treat these disorders. As a result, the future growth of the market for these products and of this business will in large part be dependent upon the development and more widespread acceptance of drug therapies to prevent and to treat osteoporosis. Over the last several years, the FDA has approved a number of drug therapies to treat osteoporosis. We also understand that a number of other drug therapies are under development. While sales of our bone densitometry products have benefited from the increased availability and use of these therapies, most patients who are at risk for osteoporosis continue to go untreated. We cannot assure that any therapies under development or in clinical trials will prove to be effective, obtain regulatory

approval, or that any approved therapy will gain wide acceptance. Even if these therapies gain widespread acceptance, we cannot assure that such acceptance will increase the sales of our products.

Reductions in revenues could harm our operating results because a high percentage of our operating expenses is relatively fixed.

A high percentage of our operating expenses is relatively fixed. We likely will not be able to reduce spending to compensate for adverse fluctuations in revenues. As a result, shortfalls in revenues are likely to adversely effect our operating results.

Our results of operations are subject to significant quarterly variation and seasonal fluctuation.

Our results of operations have been and may continue to be subject to significant quarterly variation. The results for a particular quarter may vary due to a number of factors, including:

- the overall state of healthcare and cost containment efforts;
- the development status and demand for drug therapies to treat osteoporosis;
- the development status and demand for our direct-to-digital imaging products;
- economic conditions in our markets;
- foreign exchange rates;
- the timing of orders;
- the timing of expenditures in anticipation of future sales;

- the mix of products sold by us;
- the introduction of new products and product enhancements by us or our competitors; and
- pricing and other competitive conditions.

We also believe that our sales may be somewhat seasonal, with reduced orders in the summer months reflecting summer vacation schedules. Customers may also cancel or reschedule shipments. Production difficulties could also delay shipments. Any of these factors also could harm our business and prospects.

Our delay or inability to obtain any necessary United States or foreign regulatory clearances or approvals for our products could harm our business and prospects.

Our products are medical devices that are the subject of a high level of regulatory oversight. Our delay or inability to obtain any necessary United States or foreign regulatory clearances or approvals for our products could harm our business and prospects. The process of obtaining clearances and approvals can be costly and time-consuming. There is a risk that any approvals or clearances, once obtained, may be withdrawn or modified. Medical devices cannot be marketed in the United States without clearance or approval by the FDA. Medical devices sold in the United States must also be manufactured in

compliance with FDA Good Manufacturing Practices, which regulate the design, manufacture, packing, storage and installation of medical devices. Moreover, medical devices are required to comply with FDA regulations relating to investigational research and labeling. States may also regulate the manufacture, sale and use of medical devices, particularly those that employ X-ray technology. Our products are also subject to approval and regulation by foreign regulatory and safety agencies.

Fluctuations in the exchange rates of European currencies and the other foreign currencies in which we conduct our business, in relation to the U.S. dollar, has and could continue to harm our business and prospects.

Foreign sales accounted for approximately 33% of our product sales in fiscal 2000 and 28% of our product sales in fiscal 2001. We maintain a sales and service office in Belgium and a support office in France. The expenses and sales of these offices are denominated in local currencies. We anticipate that foreign sales and sales denominated in foreign currencies will continue to account for a significant portion of our total sales. Fluctuations in the value of local currencies have caused and are likely to continue to cause, amounts translated into U.S. dollars to fluctuate in comparison with previous periods. In particular, the strength in value of the U.S. dollar to the Euro and other European currencies has resulted in an increase in price for products denominated in those currencies. We believe that these price increases have adversely affect our ability to compete in these markets. Conversely, an increase in the value of the local currencies in which we have offices would likely increase our expenses relative to U.S. dollar sales and could also harm our operating results. We have hedged our foreign currency exposure by borrowing funds in local European currencies to pay the expenses of our foreign offices. There is a risk that these hedging activities will not be successful in mitigating our foreign exchange risk exposure.

We conduct our business worldwide, which exposes us to a number of difficulties in coordinating our international activities and dealing with multiple regulatory environments.

We sell our products to customers throughout the world. Our worldwide business may be harmed by:

- difficulties in staffing and managing operations in multiple locations;
- greater difficulties in trade accounts receivable collection;
- possible adverse tax consequences;
- governmental currency controls;
- changes in various regulatory requirements;
- political and economic changes and disruptions;

- export/import controls; and
- tariff regulations.

We have experienced difficulties in collecting accounts receivable in Latin America, which as of September 29, 2001 totaled $3.3 million, including $425,000 of long-term accounts receivable included in other assets.

Our business could be harmed if we are unable to protect our proprietary technology.

We rely primarily on a combination of trade secrets, patents, copyright and trademark laws and confidentiality procedures to protect our technology. As of July 27, 2001, we had obtained 195 patents, licensed 20 patents and have pending 60 patent applications in the United States. Our patents have expiration dates ranging from 2001 to 2021. Two licensed patents with ultrasound and X-ray claims will expire in 2001. One owned patent with X-ray claims will expire in 2002. We believe that the expiration of these patents will not be material to our business. Despite these precautions, unauthorized third parties may infringe, copy or reverse engineer portions of our technology. We do not know if current or future patent applications will be issued with the scope of the claims sought, if at all, or whether any patents issued will be challenged or invalidated. In addition, we have obtained or applied for corresponding patents and patent applications in several foreign countries for some of our patents and patent applications. There is a risk that these patent applications will not be granted or that the patent or patent application will not provide significant protection for our products and technology. Our competitors may independently develop similar technology that our patents do not cover. In addition, because patent applications in the United States are not publicly disclosed until the patent is issued, applications may have been filed which relate to our technology. Moreover, there is a risk that foreign intellectual property laws will not protect our intellectual property rights to the same extent as United States intellectual property laws. In the absence of significant patent protection, we may be vulnerable to competitors who attempt to copy our products, processes or technology.

Our business could be harmed if we infringe upon the intellectual property rights of others.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device and related industries. We have been, and may be in the future, notified that we may be infringing intellectual property rights possessed by third parties. If any such claims are asserted against our intellectual property rights, we may seek to enter into royalty or licensing arrangements. There is a risk in these situations that no license will be available or that a license will not be available on reasonable terms. Alternatively, we may decide to litigate such claims or to design around the patented technology. These actions could be costly and would divert the efforts and attention of our management and technical personnel. As a result, any infringement claims by third parties or claims for indemnification by customers resulting from infringement claims, whether or not proven to be true, may harm our business and prospects.

We may be prohibited from manufacturing and selling the Lorad prone breast-biopsy system and be required to pay significant damages if Fischer Imaging Corporation succeeds in its lawsuit against Trex Medical which alleges that the system infringes two Fischer Imaging patents.

In connection with our Trex Medical acquisition, we assumed liability for a lawsuit filed by Fischer Imaging against Trex Medical alleging that the Lorad prone biopsy system infringes upon two Fischer Imaging patents, subject to indemnification from Trex Medical and its parent, Thermo Electron Corporation, for any damages up to our adjusted purchase price for the Trex Medical assets. In connection with this arrangement, Trex Medical is continuing to defend this lawsuit. Recently, Fischer Imaging filed a lawsuit against us in connection with our sales of this product. We believe that Trex Medical and Thermo Electron are also obligated to indemnify us in connection with this lawsuit, and we anticipate that they will defend this lawsuit also. If Trex Medical is unsuccessful in defending these lawsuits, we may be prohibited from manufacturing and selling the prone-breast biopsy system without a license from

Fischer Imaging and Fischer Imaging could be awarded significant damages. If a license were required, we cannot assure that we would be able to obtain one on commercially reasonable terms, if at all. Moreover, if Fischer Imaging were awarded damages, we cannot assure that our indemnification from Trex Medical and Thermo Electron, if any, would be sufficient to cover the amount of the award. A significant award above the indemnification amount actually received could harm our business and prospects.

Our future success will depend on the continued services of our key personnel.

The loss of any of our key personnel, particularly our key research and development personnel could harm our business and prospects. Our success will also depend upon our ability to attract and retain other qualified managerial and technical personnel. Competition for such personnel, particularly software engineers and other technical personnel, is intense. We may not be able to

attract and retain personnel necessary for the development of our business. We do not have any key man life insurance for any of our officers or other key personnel.

There is a risk that our insurance will not be sufficient to protect us from product liability claims, or that in the future product liability insurance will not be available to us at a reasonable cost, if at all.

Our business involves the risk of product liability claims inherent to the medical device business. We maintain product liability insurance subject to certain deductibles and exclusions. There is a risk that our insurance will not be sufficient to protect us from product liability claims, or that product liability insurance will not be available to us at a reasonable cost, if at all. An underinsured or uninsured claim could harm our operating results or financial condition.

Risks associated with hazardous materials and products.

Our research and development involves the controlled use of hazardous materials, such as toxic and carcinogenic chemicals and various radioactive compounds. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by federal, state and local regulations, we cannot completely eliminate the risk of accidental contamination or injury from these materials. In the event of this type of accident, we could be held liable for any resulting damages, and any such liability could be extensive. We are also subject to substantial regulation relating to occupational health and safety, environmental protection, hazardous substance control, and waste management and disposal. The failure to comply with such regulations could subject us to, among other things, fines and criminal liability.

Provisions in our Certificate of Incorporation and By-laws and our stockholder rights plan may have the effect of discouraging advantageous offers for our business or common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

Our Certificate of Incorporation, By-laws and the provisions of Delaware corporate law include provisions that may have the effect of discouraging or preventing a change in control. In addition, we have a stockholder rights plan that may have the effect of discouraging or preventing a change in control. These provisions could limit the price that our stockholders might receive in the future for shares of our common stock.

The volatility of our stock price could adversely affect your investment in our common stock.

The market price of our common stock has been, and may continue to be, highly volatile. We believe that a variety of factors could cause the price of our common stock to fluctuate, perhaps substantially, including:

- announcements and rumors of developments related to our business;
- quarterly fluctuations in our actual or anticipated operating results and order levels;
- general conditions in the worldwide economy;
- announcements of technological innovations;
- new products or product enhancements by us or our competitors;
- developments in patents or other intellectual property rights and litigation; and
- developments in our relationships with our customers and suppliers.

In addition, in recent years the stock market in general and the markets for shares of small capitalization and "high-tech" companies in particular, have experienced extreme price fluctuations which have often been unrelated to the operating performance of affected companies. Any such fluctuations in the future could adversely affect the market price of our common stock, and the market price of our common stock may decline.

Future sales of our common stock may cause our stock price to decline.

Substantially all of our outstanding shares of common stock are freely tradable without restriction or further registration. Affiliates must sell all shares they own in compliance with the volume and other requirements of Rule 144, except for the holding period requirements. Nevertheless, sales of substantial amounts of common stock by our shareholders, including purchasers in this offering, or even the potential for such sales, may have an adverse effect on the market price of our common stock and could impair our ability to raise capital through the sale of our equity securities.

Management will have broad discretion in how we use the proceeds of this offering, and we may not use these proceeds effectively.

Our management will have considerable discretion in the application of the net proceeds of this offering, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our profitability or our market value.

PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC utilizing a "shelf" registration process. Under this shelf process, we may sell common stock in one or more offerings up to a total of 3,000,000 shares of common stock.

PROSPECTUS SUPPLEMENT

This prospectus provides you with a general description of the offerings we may make of our common stock. Each time we sell common stock, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add to or change information contained in this prospectus. If so, the prospectus supplement should be read as superseding this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information."

The prospectus supplement to be attached to the front of this prospectus will describe the terms of the offering of common stock, including the offering price, the purchase price and net proceeds we will receive in such offering and the specific terms related to the offering.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock and do not plan to pay any cash dividends in the foreseeable future. Our current policy is to retain all of our earnings to finance future growth. In addition, our existing credit facility with Foothill Capital Corporation prohibits us from declaring or paying any dividends.

USE OF PROCEEDS

We will receive all of the net proceeds from the sale of our common stock registered under the registration statement of which this prospectus is a part. Unless the applicable prospectus supplement states otherwise, we will retain broad discretion in the allocation of the net proceeds of this offering. We expect to use the net proceeds of this offering and any future issuances under the registration statement to fund the continued development of our DirectRay direct-to-digital mammography systems, including conducting clinical trials and working toward regulatory approvals, as well as to fund research and development of our other products and for general corporate purposes and working capital. As of the date of this prospectus, we cannot specify with certainty all of the particular uses we will have for the net proceeds upon completion of the offerings made under the registration statement. Accordingly, our management will have broad discretion in the application of the net proceeds.

Pending these uses, we intend to invest the net proceeds in interest-bearing, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States.

PLAN OF DISTRIBUTION

Needham & Company, Inc. is acting as financial advisor to the Company in connection with this distribution. We may offer our common stock for sale in one or more transactions, including block transactions, at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at prices determined on a negotiated or competitive bid basis. We may sell common stock directly, through agents designated from time to time, or by such other means as may be specified in the applicable prospectus supplement. Participating agents or broker-dealers in the distribution of any of the common stock may be deemed to be "underwriters" within the meaning of the Securities Act. Any discount or commission received by any underwriter and any participating agents or broker-

dealers, and any profit on the resale of shares of the securities purchased by any of them may be deemed to be underwriting discounts or commissions under the Securities Act.

We may sell our common stock through a broker-dealer acting as agent or broker or to a broker-dealer acting as principal. In the latter case, the broker-dealer may then resell such common stock to the public at varying prices to be determined by the broker-dealer at the time of resale.

To the extent required, the number and amount of the common stock to be sold, information relating to the underwriters, the purchase price, the public offering price, if applicable, the name of any underwriter, agent or broker-dealer, and any applicable commissions, discounts or other items constituting compensation to such underwriters, agents or broker-dealers with respect to a particular offering will be set forth in any accompanying supplement to this prospectus.

If underwriters are used in a sale, common stock will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The common stock may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. The underwriter or underwriters with respect to a particular underwritten offering of the common stock will be named in the prospectus supplement relating to that offering and, if an underwriting syndicate is used, the managing underwriter or underwriters will be stated on the cover of the prospectus supplement. Underwriters, dealers, and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward certain civil liabilities, including under the Securities Act.

Under the common stock laws of some states, the common stock registered by the registration statement may be sold in those states only through registered or licensed brokers or dealers.

Any person participating in the distribution of the common stock registered under the registration statement that includes this prospectus will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, and the applicable Securities and Exchange Commission rules and regulations, including, among others, Regulation M, which may limit the timing of purchases and sales of any of our common stock by any such person. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of our common stock to engage in market-making activities with respect to our securities. These restrictions may affect the marketability of our common stock and the ability of any person or entity to engage in market-making activities with respect to our common stock.

Upon sale under the registration statement that includes this prospectus, the securities registered by the registration statement will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

The validity of the shares of common stock to be sold in this offering will be passed upon for us by Brown, Rudnick, Freed & Gesmer, Boston, Massachusetts.

EXPERTS

The financial statements of Hologic, Inc., as of September 25, 1999 and September 30, 2000 and for each of the three years in the period ended September

30, 2000 incorporated by reference in this prospectus and in the registration statement have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their reports with respect thereto, and are incorporated by reference in reliance upon the authority of such firm as experts in giving such report.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (SEC). You may read and copy these reports, proxy statements and other information at the SEC's public reference room at 450 Fifth Street, NW., Washington, D.C. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available at the SEC's web site at http://www.sec.gov.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to common stock offered in connection with this prospectus. This prospectus does not contain all of the information set forth in the registration statement. We have omitted certain parts of the registration statement in accordance with the rules and regulations of the SEC. For further information with respect to us and our common stock, you should refer to the registration statement. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, you should refer to the copy of such contract or document filed as an exhibit to or incorporated by reference in the registration statement. Each statement as to the contents of such contract or document is qualified in all respects by such reference. You may obtain copies of the registration statement from the SEC's principal office in Washington, D.C. upon payment of the fees prescribed by the SEC, or you may examine the registration statement without charge at the offices of the SEC described above.

The SEC allows us to "incorporate by reference" information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, until all of the common stock registered hereunder is sold:

- Our Annual Report on Form 10-K for the year ended September 30, 2000;
- Our Quarterly Reports on Form 10-Q for the period ended December 30, 2000; March 31, 2001; and June 30, 2001;
- The description of our common stock contained in our Registration Statement on Form 8-A dated January 31, 1990;
- The description of our common stock purchase rights contained in our Registration Statement on Form 8-A/A dated June 14, 1999, filed with the SEC on June 18, 1999; and
- Current Reports on Form 8-K filed with the SEC on June 28, 2001 and August

2, 2001.

You may request a copy of these filings at no cost by writing or telephoning us at the following address:

Hologic, Inc.
35 Crosby Drive
Bedford, MA 01730-1401
Attention: Investor Relations
Tel: (781) 999-7300

You should rely only on the information or representations provided in this prospectus. We have authorized no one to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

SEC Registration Fee	$ 7,245
Printing Expenses	$_____*
Accounting Fees and Expenses	$_____*
Legal Fees and Expenses	$_____*
Miscellaneous	$_____*
TOTAL	$ 250,000

* Estimated

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Article 10 of our Certificate of Incorporation eliminates the personal liability of directors to us or our stockholders for monetary damages for breach of fiduciary duty to the extent permitted by Delaware General Corporation Law. Article VII of our By-Laws provides that we shall indemnify our officers and directors to the extent permitted by Delaware General Corporation Law. Section 145 of the Delaware General Corporation Law authorizes a corporation to indemnify directors, officers, employees or agents of the corporation if such party acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation and, with respect to any criminal action or proceeding, had no reason to believe his conduct was unlawful, as determined in accordance with the Delaware General Corporation Law. Section 145 further provides that indemnification shall be provided if the party in question is successful on the merits otherwise. We have also entered into indemnification agreements with each of our directors. The indemnification agreements are intended to provide the maximum protection permitted by Delaware law with respect to indemnification of directors. We may also enter into similar agreements with certain of our officers who are not also directors. The effect of these provisions is to permit indemnification by us for liabilities arising under the Securities Act of 1933, as amended. We also maintain directors and officers liability insurance.

ITEM 16. EXHIBITS

Exhibit Number		Refere
1.01	Form of Underwriting Agreement	A
2.01	Merger Agreement between Hologic and its Massachusetts predecessor	B
2.02	Agreement and Plan of Merger between Hologic, Fenway Acquisition Corp., and FluoroScan Imaging Systems, Inc.	D-2.0
2.03	Securities Purchase Agreement dated April 28, 1999, as amended on June 3, 1999 by and among Hologic, Sterling Diagnostic Imaging, Inc. and SDI Investments, L.L.C.	G-1
2.04	Contract of Sale dated April 28, 1999, as amended on June 3, 1999, by and between Glasgow Land Company, L.L.C. and Hologic	G-2
2.05	Asset Purchase and Sale Agreement among Trex Medical Systems, Corporation, ThermoTrex Corporation and Thermo Electron Corporation and Hologic dated August 13, 2000	H-2
3.01	Certificate of Incorporation of Hologic	B
4.01	Specimen certificate for shares of Hologic's Common Stock	B
4.02	Description of capital stock (contained in Hologic's Certificate of Incorporation filed, as Exhibit 3.01)	B

4.03	Rights Agreement dated December 22, 1992	C
4.04	Amendment No. 1 to Rights Agreement dated as of December 13, 1995	E-4.0
4.05	Amendment No. 2 to Rights Agreement dated as of December 19, 1996	E-4.0
4.06	Amendment No. 3 to Rights Agreement dated as of April 25, 1999	F-4.0
5.01	Legal Opinion of Brown, Rudnick, Freed & Gesmer, P.C.	A
23.01	Consent of Arthur Andersen LLP	I
23.02	Legal Opinion of Brown, Rudnick, Freed & Gesmer, P.C. (included in Exhibit 5.01)	A
23.04	Consent of Brown, Rudnick, Freed & Gesmer, P.C. (included in Exhibit 5.01)	A
24.01	Power of Attorney (contained on page II-4 hereof)	A

A. To be filed by Amendment.

B. The above exhibits were previously filed as an exhibit of the same number to our Registration Statement on Form S-1 (Registration No. 33-33128) filed on January 24, 1990 and are incorporated herein by reference.

C. The above exhibit was previously filed as an exhibit of the same number to our 1992 Annual Report on Form 10-K and are incorporated herein by reference.

D. The above exhibit was previously filed as an exhibit of the above referenced number of our Proxy Statement and Prospectus on Form S-4 filed (Registration No. 333-08977) on August 6, 1996 and is incorporated herein by reference.

E. The above exhibit was previously filed as an exhibit of the referenced number to Amendment No. 1 to Hologic's Registration

Statement on Form 8-A/A (Registration No. 000-18281) filed on January 17, 1997 and is incorporated herein by reference.

F. The above exhibit was previously filed as an exhibit of the referenced number to Amendment No. 2 to Hologic's Registration Statement on Form 8-A/A (Registration No. 000-18281) filed on May 20, 1999 and is incorporated herein by reference.

G. The above exhibit was previously filed as an exhibit of the referenced number to Hologic's Current Report on Form 8-K (SEC File No. 000-18281) filed on June 18, 1999 and is incorporated herein by reference.

H. The above exhibit was previously filed on October 2, 2000 with the referenced exhibit number as an exhibit to our Current Report on Form 8-K (SEC File No. 000-18281) dated as of September 15, 2000, and the previously filed exhibit is incorporated by reference.

I. Filed herewith.

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this Registration Statement.

(2) That, for the purposes of determining any liability under the Securities Act, each post-effective amendment shall be deemed to be a new registration statement, relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of

the securities being registered which remain unsold at the termination of the offering.

The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the indemnification provisions described herein, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as express in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Bedford, Commonwealth of Massachusetts, on the 16th day of November, 2001.

HOLOGIC, INC.

By: /s/ John W. Cumming

John W. Cumming
Chief Executive Officer and President

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each person whose signature appears below constitutes and appoints each of John W. Cumming and Glenn P. Muir, with the power to act without the other, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution for him or in his name, place and stead, in any and all capacities to sign any and all amendments or post-effective amendments to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, and in connection with any registration of additional securities pursuant to Rule 462(b) under the Securities Act of 1933, as amended, to sign any abbreviated registration statements and any and all amendments thereto, and to file the same, with all exhibits thereto and other documents in connection therewith, in each case, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and

authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitutes, may lawfully do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES ACT OF 1933, THIS REGISTRATION STATEMENT HAS BEEN SIGNED BY THE FOLLOWING PERSONS IN THE CAPACITIES AND ON THE DATES INDICATED.

SIGNATURE	TITLE	DATE
/s/ John W. Cumming John W. Cumming	Director, Chief Executive Officer and President (Principal Executive Officer)	November 16
/s/ Glenn P. Muir Glenn P. Muir	Executive Vice President Finance and Administration, Treasurer and Director (Principal Financial Officer)	November 16
/s/ Jay A. Stein Jay A. Stein	Chairman of the Board and Chief Technical Officer	November 16
/s/ Robert H. Lavallee Robert H. Lavallee	Principal Accounting Officer and Controller	November 16
/s/ Irwin Jacobs Irwin Jacobs	Director	November 16
/s/ William A. Peck William A. Peck	Director	November 16

/s/ Elaine Ullian Elaine Ullian	Director	November 16, 2001

EXHIBIT INDEX

Exhibit Number	Reference

1.01	Form of Underwriting Agreement	A
2.01	Merger Agreement between Hologic and its Massachusetts predecessor	B
2.02	Agreement and Plan of Merger between Hologic, Fenway Acquisition Corp., and FluoroScan Imaging Systems, Inc.	D-2.01
2.03	Securities Purchase Agreement dated April 28, 1999, as amended on June 3, 1999 by and among Hologic, Sterling Diagnostic Imaging, Inc. and SDI Investments, L.L.C.	G-1
2.04	Contract of Sale dated April 28, 1999, as amended on June 3, 1999, by and between Glasgow Land Company, L.L.C. and Hologic	G-2
2.05	Asset Purchase and Sale Agreement among Trex Medical Systems, Corporation, ThermoTrex Corporation and Thermo Electron Corporation and Hologic dated August 13, 2000	H-2
3.01	Certificate of Incorporation of Hologic	B
4.01	Specimen certificate for shares of Hologic's Common Stock	B
4.02	Description of capital stock (contained in Hologic's Certificate of Incorporation filed, as Exhibit 3.01)	B
4.03	Rights Agreement dated December 22, 1992	C
4.04	Amendment No. 1 to Rights Agreement dated as of December 13, 1995	E-4.01
4.05	Amendment No. 2 to Rights Agreement dated as of December 19, 1996	E-4.02
4.06	Amendment No. 3 to Rights Agreement dated as of April 25, 1999	F-4.03
5.01	Legal Opinion of Brown, Rudnick, Freed & Gesmer, P.C.	A
23.01	Consent of Arthur Andersen LLP	I
23.02	Legal Opinion of Brown, Rudnick, Freed & Gesmer, P.C. (included in Exhibit 5.01)	A
23.03	Consent of Brown, Rudnick, Freed & Gesmer, P.C. (included in Exhibit 5.01)	A
24.01	Power of Attorney (contained on page II-4 hereof)	A

A. To be filed by amendment.

B. The above exhibits were previously filed as an exhibit of the same number to our Registration Statement on Form S-1 (Registration No. 33-33128) filed on January 24, 1990 and are incorporated herein by reference.

C. The above exhibit was previously filed as an exhibit of the same number to our 1992 Annual Report on Form 10-K and are incorporated herein by reference.

D. The above exhibit was previously filed as an exhibit of the above referenced number of our Proxy Statement and Prospectus on Form S-4 filed (Registration No. 333-08977) on August 6, 1996 and is incorporated herein by reference.

E. The above exhibit was previously filed as an exhibit of the referenced number to Amendment No. 1 to Hologic's Registration Statement on Form 8-A/A (Registration No. 000-18281) filed on January 17, 1997 and is incorporated herein by reference.

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