THORATEC CORP
Form 10-K
April 02, 2007

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

(Mark one)

þ **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 30, 2006

o **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to .

Commission file number: 000-49798

Thoratec Corporation

(Exact Name of Registrant as Specified in Its Charter)

California	**94-2340464**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
6035 Stoneridge Drive, Pleasanton, California	**94588**
(Address of Principal Executive Offices)	*(Zip Code)*

Registrant s telephone number, including area code: (925) 847-8600

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

Title of Each Class	Name of Each Exchange of which Registered
Common Stock, no par value per share	NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Exchange Act: None

Indicate by a check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No þ

Indicate by a check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes o No þ

Indicate by a check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No o

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

Indicate by a check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer þ Accelerated filer o Non-accelerated filer o

Indicate by a check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12(b)-2) Yes o No þ

The aggregate market value of the voting stock held by non-affiliates computed by reference to the last sale reported of such stock on June 30, 2006, the last business day of the Registrant s second fiscal quarter, was

$696,996,322.

As of February 24, 2007, the Registrant had 52,977,715 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Designated portions of Thoratec s definitive proxy statement for its 2007 annual meeting of shareholders are incorporated by reference into Part III of this Form 10-K.

Thoratec, the Thoratec logo, Thoralon, TLC-II, HeartMate, HeartMate II, Heart Hope and *Vectra* are registered trademarks of Thoratec Corporation, and IVAD is a trademark of Thoratec Corporation.

CentriMag is a registered trademark of Levitronix LLC.

ITC, A-VOX Systems, AVOXimeter, HEMOCHRON, Hemochron Signature Elite, ProTime, Surgicutt, Tenderlett, Tenderfoot, and IRMA are registered trademarks of International Technidyne Corporation (ITC), our wholly-owned subsidiary.

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PART I

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the documents incorporated by reference in this Annual Report, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements can be identified by the words expects, projects, hopes, believes, intends, should, estimate, will, would, may, anticipates, pl similar words. Actual results, events or performance could differ materially from these forward-looking statements based on a variety of factors, many of which are beyond our control. Therefore, readers are cautioned not to put undue reliance on these statements. Factors that could cause actual results or conditions to differ from those anticipated by these and other forward-looking statements include those more fully described in the Risk Factors section of this Annual Report and in other documents we file with the Securities and Exchange Commission (SEC). These forward-looking statements speak only as of the date hereof. We undertake no obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect events or circumstances after the date hereof, or to reflect the occurrence of unanticipated events.

Item 1. *Business*

OVERVIEW

Thoratec Corporation (we, our, us, the Company) is a world leader in therapies to address advanced heart failure (HF) and point-of-care diagnostics and incision applications.

For advanced HF we develop, manufacture and market proprietary medical devices used for circulatory support. Our primary product lines are our ventricular assist devices (VADs): the Paracorporeal Ventricular Assist Device (PVAD), the Implantable Ventricular Assist Device (IVAD), the HeartMate Left Ventricular Assist System (HeartMate XVE), and the HeartMate II Left Ventricular Assist System (HeartMate II). The IVAD, PVAD and the HeartMate XVE are approved by the U.S. Food and Drug Administration (FDA) and CE Mark approved in Europe. The HeartMate II is CE Mark approved in Europe and is in a Phase II pivotal trial in the U.S. We also manufacture a vascular access graft for renal dialysis.

In addition to our circulatory support products, we also develop, manufacture and market point-of-care diagnostic test systems for hospital point-of-care and alternative site point-of-care and incision products.

Incorporated in the State of California in 1976, Thoratec Corporation trades on the NASDAQ Global Select Market under the ticker symbol THOR and is headquartered in Pleasanton, California.

Our business is comprised of two operating divisions: Cardiovascular and International Technidyne Corporation (ITC), a wholly owned subsidiary.

The product line within the Cardiovascular segment is:

Circulatory Support Products. Our circulatory support products include the PVAD, IVAD, HeartMate XVE and HeartMate II for short, intermediate and long-term treatment of advanced HF. In addition, in August 2006 we began marketing the CentriMag Blood Pumping System (CentriMag) for acute HF. CentriMag is manufactured by Levitronix LLC (Levitronix) and distributed by us in the U.S. under a distribution agreement with Levitronix. We also manufacture and sell small diameter grafts using our proprietary materials to address the vascular access market for hemodialysis.

The product lines of our ITC segment are:

Point-of-Care Diagnostics. Our point-of-care products include diagnostic test systems that monitor blood coagulation while a patient is being administered certain anticoagulants, as well as monitor blood gas/electrolyte, oxygenation and chemistry status, including total hemoglobin.

Incision. Our incision products include devices used to obtain a patient s blood sample for diagnostic testing and screening for platelet function.

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HF is a disorder in which the heart loses its ability to pump blood efficiently. This condition may affect the right side, the left side or both sides of the heart, depriving many organs, including the kidneys and liver, of adequate oxygen and nutrients. This deprivation damages these organs and reduces their ability to function properly. Approximately 23 million people worldwide suffer from HF, with approximately two million new cases of HF diagnosed each year worldwide. In the U.S., according to the American Heart Association (the AHA), nearly five million patients suffer from HF and an additional 550,000 patients are diagnosed with the condition annually. In contrast to other cardiovascular disorders, many of which have actually declined in the past few decades, the incidence of HF ranks as the most rapidly growing cardiovascular disorder in the U.S. Our VADs provide hemodynamic restoration therapy, which supports the performance of the heart and restores blood flow to adequately meet the needs of vital organs.

Our VADs have been clinically proven to improve patient survival and quality of life. We currently offer the widest range of products to serve this market, including VADs for short, intermediate and long-term support, as well as devices that are FDA-approved as a bridge-to-transplantation (BTT), for permanent support for patients suffering from late-stage HF who are not eligible for heart transplantation (Destination Therapy or DT) and/or postcardiotomy myocardial recovery. We believe that our long-standing reputation for quality and innovation and our excellent relationships with leading cardiovascular surgeons worldwide position us to capture growth opportunities in the expanding HF market.

We currently market VADs that may be implanted or worn outside the body, can be used for left, right or biventricular support and that are suitable for treatments for different durations for patients of varying sizes and ages. We estimate that doctors have implanted more than 11,000 of our devices, primarily for patients awaiting a heart transplant or those who require permanent support. On November 6, 2002, the FDA approved the HeartMate VE as the first heart assist device for Destination Therapy. On April 7, 2003, the FDA approved the HeartMate XVE, an enhanced version of the HeartMate VE, for Destination Therapy. Thoratec is the only company to offer a VAD approved by the FDA for Destination Therapy and marks the first time a VAD has been approved as a permanent treatment for late-stage HF patients who do not qualify for heart transplants because of age or extenuating health circumstances, and who otherwise have a life expectancy of less than two years. The FDA s decision to approve the HeartMate VAD for Destination Therapy was based on data from a clinical trial called Randomized Evaluation of Mechanical Assistance for the Treatment of Congestive HF, which showed our HeartMate device nearly doubled and tripled survival over the drug therapy group at one and two years, respectively.

Our HeartMate II, which is intended for long-term cardiac support for approximately five to ten years, for patients who are in late-stage HF, is currently in a Phase II pivotal trial in the U.S. The HeartMate II is a small, implantable, electrically powered device that weighs about 12 ounces and is approximately 1.7 inches in diameter and 3.2 inches long. In addition to being significantly smaller than the HeartMate XVE, with only one moving part the HeartMate II is simpler and designed to operate more quietly than pulsatile devices. As an axial flow device, the HeartMate II is designed to provide blood flow through the circulatory system on a continual basis and is smaller and easier to implant than pulsatile devices.

In August 2006, we announced a distribution agreement under which we will distribute the CentriMag in the U.S. The initial term of the agreement expires in 2011. This device is 510(k), as further described in the Government Regulations below, approved and cleared by the FDA for patients requiring short-term extracorporeal circulatory support for up to six hours during cardiac surgery.

The Centers for Medicare & Medicaid Services (CMS) issued a National Coverage Decision Memorandum covering reimbursement for the use of a Left Ventricular Assist System for Destination Therapy, effective October 1, 2003. CMS has subsequently adjusted the relative weight and base level of reimbursement it will provide under diagnosis-related group 103 Heart Transplant or Implant of Implantable Heart Assist Systems (DRG 103), to raise the average payment for CMS Destination Therapy-certified Centers to approximately $143,000 in 2006, compared to the average payment of approximately $136,000 in 2005, the same reimbursement given for heart transplants. In many cases, the actual payments to hospitals under DRG 103 could be higher or lower, based on geographical location and other factors.

Several private payors have also issued positive coverage decisions. The majority of local Blue Cross and Blue Shield plans cover procedures for both bridge-to-transplantation and long-term therapy indications. Since

December 2002, the majority of national insurance carriers, including Aetna, Cigna, Humana, United Health Group and UNICARE, have policies covering the use of ventricular assist devices for FDA-approved indications, including DT.

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OUR MARKETS

CARDIOVASCULAR SEGMENT

Circulatory Support and Graft Products

Our VAD products primarily serve patients suffering from late-stage HF. HF is a chronic disease that occurs when degeneration of the heart muscle reduces the pumping power of the heart, causing the heart to become too weak to pump blood at a level sufficient to meet the body s demands. The condition can be caused by arterial and valvular diseases or a cardiomyopathy, which is a disease of the heart muscle itself. Other conditions, such as high blood pressure or diabetes, also can lead to HF.

According to estimates by the AHA, 5 million patients suffer from HF in the U.S. and approximately 550,000 new cases are diagnosed each year. The AHA also estimates that approximately 80% of men and 70% of women HF patients under age 65 will die within eight years of diagnosis. While the number of treatment options for earlier stage HF has increased in recent years, pharmacologic medications remain the most widely used approach for treatment of HF. These drug therapies include ACE inhibitors, anti-coagulants and beta-blockers, which facilitate blood flow, thin the blood or help the heart work in a more efficient manner. Other procedures include angioplasty, biventricular pacing, valve replacement, bypass and left ventricular reduction surgery.

Despite attempts to manage HF through drug therapy, the only curative treatment for late stages of the disease is heart transplantation. Unfortunately, the number of donor hearts available each year can meet the needs of only a small number of patients who could benefit from transplantation. The United Network for Organ Sharing reported that there were approximately 2,000 hearts available for transplant in the U.S. in 2006. At any given time, approximately 3,000 patients are on the U.S. national transplant waiting list, and we believe a comparable number of patients are waiting in Europe. The median wait for a donor heart is approximately nine months; many patients have to wait as long as two years.

In the U.S., there are currently two FDA-approved indications for the long-term use of VADs in patients with HF: as a bridge to heart transplantation and as Destination Therapy. We are currently pursuing an additional indication for our VAD products: therapeutic recovery of the heart. In addition to the chronic HF markets, VADs are also approved for use for acute heart failure following cardiac surgery and the CentriMag is approved for use during cardiac surgery. All five indications are summarized below.

Bridge-to-Transplantation Ventricular assist devices provide additional cardiac support for patients with late-stage HF waiting for a donor heart. Approximately 25% of the patients on the waiting list for a heart transplant in the U.S. receive a VAD. We believe that the percentage of patients bridged to transplant will continue to increase with surgeons level of comfort with the technology, particularly for longer-term support cases. There are currently four devices approved in the U.S. as a bridge to-transplant in adults that are commercially marketed, three of which are Thoratec devices.

Destination Therapy On November 6, 2002, we received approval to market a HeartMate VAD for Destination Therapy patients with late-stage HF who are not candidates for heart transplantation due to other degenerative illnesses or advanced age. The National Institutes for Health estimated that the Destination Therapy application represents a long-term market opportunity of up to 100,000 additional patients annually in the U.S. For these late-stage HF patients, drug therapy is currently the only other treatment available. Even with drug therapy, the 12-month mortality rate for these patients is approximately 80%. We believe that the HeartMate provides a significant survival benefit for this patient population. We believe that the success in transitioning this market from maximum drug therapy to VADs is dependent on the development of products such as our HeartMate products that deliver substantial longevity and proof of clinical efficacy.

Therapeutic Recovery We believe that for most patients recovery of their own heart function, if possible, would be a better alternative than either heart transplantation or permanent implantation of a blood pumping device. We intend to continue pursuing a bridge to myocardial recovery indication to add to our labeling, that if approved by the FDA, would allow the VAD to be used to treat patients diagnosed with acute cardiac disorders such as fulminate myocarditis. Our work towards this end will continue in 2007. In addition, based on recently reported cases of recovery in HF patients in Europe, we believe that our VADs, in combination with other agents such as cell or drug therapies, have the potential to reverse late-stage HF in certain patients. While a combination therapeutic recovery

indication is not yet approved for our devices, we are actively performing research and collaborating with leading medical centers in this area. While it is not certain how many patients with HF could benefit from these recovery indications, based upon our estimate of the percentage of patients with late-stage HF, we believe that the patient population could be substantial.

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Post-Cardiotomy Myocardial Recovery Following Cardiac Surgery In addition to chronic HF, our devices are also used for patients who suffer from acute cardiac failure after undergoing cardiac surgery. Some patients have difficulty being weaned off heart/lung machines after surgery, a complication that arises in open-heart procedures. Many of these patients ultimately die from HF when the heart, weakened by disease and the additional trauma of surgery, fails to maintain adequate blood circulation. We believe that only a small portion of this market is currently being treated with VADs and that this patient population could benefit substantially from the use of our FDA-approved PVAD and IVAD products in this market.

Cardiac Surgery Support In August 2006, we signed a distribution agreement with Levitronix under which we will distribute the CentriMag in the U.S. This agreement allows us to expand more broadly beyond transplant centers and enables us to better address opportunities in short-term patient recovery. The CentriMag device currently has FDA 510(k) approval in the U.S. for use in patients requiring short-term extracorporeal circulatory support during cardiac surgery. Levitronix is currently in discussion with the FDA regarding an Investigational Device Exemption (IDE) to begin a pivotal trial to demonstrate safety and effectiveness of the CentriMag for any cardiac condition resulting in ventricular failure where there is an opportunity for recovery.

Vascular Graft Products In addition to the circulatory support market, we sell a device that addresses the vascular access graft market, which we market as the *Vectra* Vascular Access Graft (*Vectr*a), for patients undergoing renal hemodialysis.

ITC SEGMENT

Point-of-Care Diagnostics Products Our point-of-care blood diagnostic test systems provide fast, accurate blood test results to improve patient management, reduce healthcare costs and improve patient outcomes. These products are sold into the hospital point-of-care market, into the alternate site point-of-care market including physicians offices, long-term care facilities, clinics, visiting nurse associations, home healthcare companies, and directly to patients. We believe that the market growth for point-of-care diagnostic products is driven by greater convenience and ease of use for the clinician and patient. In addition, there are clinical benefits derived from more frequent monitoring and providing time sensitive information at the patient s bedside.

Incision Products Our incision products are used by professionals to obtain a patient s blood sample for diagnostic testing. Our incision products are sold into both the hospital point-of-care and the alternate site point-of-care markets. All products feature permanently retracting blades for a safe, less painful incision as compared to traditional lancets, which puncture the skin.

OUR STRATEGY

Our strategy to maintain and expand our leadership position in our markets is comprised of the following market and product development activities:

Offer a broad range of products. Our VADs provide mechanical circulatory support for the heart and have been clinically proven to improve patient survival and quality of life. We currently offer the widest range of VADs to cover indications for use ranging from acute to long-term support. We believe that our broad and diverse product offering represents an important competitive advantage because it allows us to address the various preferences of surgeons, the clinical needs of a wide variety of patients, and the economic requirements of third party payors. We intend to further broaden our product line through internal development, acquisition and licensing.

Focus on and partner with leading heart centers. We have developed long-standing relationships with leading cardiovascular surgeons and heart centers worldwide. We believe that no other cardiac assist company enjoys the same depth of relationships and access to these customers. These relationships are an important part of our growth strategy, particularly for the development and introduction of new products and the pursuit of additional indications for our existing products. We continued our investment in building these relationships through a team of Market Development Managers as part of our program to generate referrals to our leading VAD centers, including those in our Heart Hope Program that we began in 2004. These specialists work in partnership with our VAD centers to increase the awareness of hemodynamic restoration therapy and VADs in the cardiology community.

Increase penetration of existing markets. We plan to treat a greater number and variety of patients within our current customer base. To accomplish this, we are building upon our existing relationships with leading cardiac surgeons, cardiac catheterization labs and hospitals, and using our existing sales channels to gain acceptance and

adoption of our products.

Destination Therapy Market. In November 2002, we received approval for a HeartMate VAD for Destination Therapy in the treatment of late-stage HF patients who are not candidates for heart transplants. While the initial CMS reimbursement approval was limited to sixty-nine centers in 2004, we estimate the market penetration for this indication could eventually

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comprise of a meaningful portion of the 100,000 patients annually diagnosed with late-stage HF, as we introduce new technologies that increase the useful life of our VAD and improve the outcome of procedures.

Increase our presence in Cardiovascular and ITC market segments. In addition to increasing our presence in the HF, cardiovascular disease, point-of-care and incision markets through internal growth, we continue to evaluate strategic alliances, joint ventures, acquisitions and related business development opportunities.

Acute Market. In August 2006, we entered into a distribution agreement with Levitronix to distribute the CentriMag in the U.S. This agreement allows us to expand more broadly beyond transplant centers and enables us to better address opportunities in short-term patient recovery. The CentriMag device currently has FDA 510(k) approval for use in patients requiring short-term extracorporeal circulatory support during cardiac surgery. Levitronix is currently in discussion with the FDA regarding an IDE to begin a pivotal trial to demonstrate safety and effectiveness of the CentriMag for any cardiac condition resulting in ventricular failure where there is an opportunity for recovery.

Point-of-Care Market. On October 3, 2006, we acquired A-VOX Systems, Inc., (Avox) a point-of-care company that develops and manufactures portable, bedside CO-oximetry systems to assist clinicians in assessing a patient s oxygenation status. These systems are used in hospitals in the cardiac catherization lab, the intensive care unit (ICU), the neonatal intensive care unit (NICU) and the emergency department. Our strategy is to sell these systems along with our Hemochron and IRMA point-of-care products and our data management system that connects all of these systems together.

Obtain approval for new products. We began our U.S. Phase II clinical trial for our HeartMate II in the first quarter of 2005 following a successful Phase I trial that allowed enrollment of 133 BTT patients, with 26 centers participating. In May 2006, and again in November 2006, the FDA approved an IDE supplement that allowed enrollment of an additional 90 patients each, for a combined total of 180 additional patients, in the BTT arm under a Continued Access Protocol (CAP). In October 2006, we filed the first two modules of the Pre-Market Approval (PMA) application seeking BTT approval for the HeartMate II that addressed all of the supporting engineering and preclinical studies, as well as manufacturing and quality systems. In December 2006, we completed the PMA submission for the BTT arm of the clinical trial. The PMA filing is based on data from 133 BTT patients representing more than 57 years of cumulative support; days of support ranged from 1-568 days.

In addition, we have a separate arm of the trial seeking approval for DT. Enrollment in this arm is continuing and, as of December 30, 2006, 140 randomized patients have been enrolled in the DT arm. The trial calls for 200 total patients randomized to Thoratec s HeartMate XVE on a 2-1 basis.

Increase cost effectiveness of the therapies that employ our products. While a recent study indicates that the cost of implanting a VAD for Destination Therapy is comparable with that of a heart, liver or other major organ transplant, cost remains a significant concern for our customers. In October 2003, CMS issued a favorable National Coverage decision for the use of left ventricular assist systems that are approved by the FDA for treating Destination Therapy in late-stage HF patients. We work closely with the sixty-nine CMS-approved centers to develop the Destination Therapy market, which we believe will ultimately improve the cost effectiveness of this therapy. We also are expanding our market education and training programs, and continue to make improvements that enhance the performance and cost effectiveness of our products.

OUR PRODUCTS

Cardiovascular Segment

Our Cardiovascular segment offers the following broad product portfolio of implantable and external circulatory support product devices:

The PVAD is an external device for short to mid-term cardiac support. The device, which is sold worldwide, is approved to assist left, right and biventricular support and is worn outside of the body. The PVAD is approved by the FDA for use as a bridge to transplantation and for post-cardiotomy myocardial recovery.

The IVAD is the only implantable blood pump approved for both bridge-to-transplantation and post-cardiotomy myocardial recovery that can be used for left, right, or biventricular support. The IVAD

utilizes the same internal working components as the PVAD, but has an outer housing made of a titanium alloy that makes it more suitable for implantation.

The HeartMate XVE, is an implantable device for mid to longer-term cardiac support and is the only device approved in the U.S., Europe and Canada for permanent support for those patients ineligible for heart transplantation. This device is designed

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to assist the pumping function of the heart s left ventricle and features a unique, textured blood-contacting surface that eliminates the need for systemic anticoagulation.

The HeartMate II is an implantable device consisting of a miniature rotary blood pump designed to provide long-term support. Its design is intended to be not only smaller, but also simpler, quieter, and longer lasting than the current generation of ventricular assist device. The HeartMate II is CE Mark approved for distribution in Europe, but is currently only approved in the U.S. for investigational use.

CentriMag is an external device for short-term circulatory support consisting of a single-use blood pump, a motor and a device console. This device is 510(k) approved by the FDA for patients requiring short-term extra corporeal circulatory support during cardiac surgery.

In addition to our cardiac assist products, we sell vascular access graft products used in hemodialysis for patients with late-stage renal disease.

Circulatory Support and Graft Products

Ventricular assist devices perform some or most of the pumping function of the heart in patients with severe HF. In most cases, a cannula connects the left ventricle of the heart to a blood pump. Blood flows from the left ventricle to the pump chamber via the cannula, powered by an electric or air driven mechanism that drives the blood through another cannula into the aorta. From the aorta, the blood then circulates throughout the body. Mechanical or tissue valves enable unidirectional flow in some devices. Currently, the power source remains outside the body for all FDA-approved VADs.

Certain VADs are implanted internally, while others are placed outside the body. Some external devices are placed immediately adjacent to the body (paracorporeal), while other external VADs are positioned at a distance from the body (extracorporeal).

The Paracorporeal Ventricular Assist Device

The PVAD is a paracorporeal device that is less invasive than implantable VADs since only the cannula is implanted. The paracorporeal nature of the PVAD has several positive consequences including relatively shorter and less invasive implantation times (approximately two hours) and the ability to use the device in smaller patients.

A pneumatic power source drives the PVAD. It is designed for intermediate duration use of a few weeks to several months, although this device has supported numerous patients for six to 18 months. Offering left, right or biventricular support, the PVAD and the IVAD, described below, are the only biventricular support systems approved for use as a bridge-to-transplant. This characteristic is significant since approximately 50% of bridge-to-transplant patients treated with the PVAD require right as well as left-sided ventricular assist. The PVAD is also the only device approved for both bridge-to-transplantation and recovery following cardiac surgery. We are working with the FDA to gain approval for a therapeutic recovery indication for the PVAD. The PVAD incorporates our proprietary biomaterial, Thoralon, which has excellent tissue and blood compatibility and is resistant to blood clots.

The PVAD uses our TLC-II driver, which is a small portable driver that increases portability and ambulation options compared to the typical drive console. The TLC-II portable driver was approved in the U.S. in June 2001 for use in off-site excursions and in December 2003 for home discharge use. The TLC-II has been approved for use in Europe since 1998.

The Implantable Ventricular Assist Device

We received CE Mark certification to market the Thoratec IVAD in Europe in July 2003 and FDA approval for the U.S. market in August 2004. The IVAD was approved in Canada in November 2004. The IVAD is currently the only approved implantable cardiac assist device that can provide left, right or biventricular support. The IVAD maintains the same blood flow path, valves and blood pump as the PVAD device and is better suited for longer-term support compared to the PVAD. The outer covering of the IVAD is made of a titanium alloy, which facilitates implantation. The device weighs less than one pound and can be implanted in patients ranging in weight from 90 lbs to more than 220 lbs. The IVAD is designed as a bridge-to-transplantation and potentially for therapeutic recovery.

The HeartMate XVE

The HeartMate VE initially received FDA approval in September 1998. The enhanced version of the product, called the HeartMate XVE, received FDA approval in December 2001 for bridge-to-transplantation. In April 2003, the

HeartMate XVE received FDA

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approval for Destination Therapy. The HeartMate XVE is designed for use for a duration from several months to up to three years. The HeartMate XVE offers only left ventricular support. Patients with a HeartMate XVE do not require anti-coagulation drugs, other then aspirin, because of the product s incorporation of proprietary textured surfaces and tissue valves. As a result, we believe this device has the lowest rate of stroke incidence for patients using ventricular support. The implantable nature of this device enables patient mobility and home discharge.

The HeartMate II

The HeartMate II is designed to improve survival and quality of life and to provide five to ten years of circulatory support for a broad range of advanced heart failure patients. The HeartMate II is a small, implantable, electrically powered device that weighs about 12 ounces and is approximately 1.7 inches in diameter and 3.2 inches in length. In addition to being significantly smaller than the HeartMate XVE, with only one moving part the HeartMate II is simpler and designed to operate more quietly than pulsatile devices. The HeartMate II is designed to provide blood flow through the circulatory system on a continual basis. More than 600 patients worldwide have been implanted with the HeartMate II as of the end of 2006. The IDE for the pivotal trial in the U.S. for both bridge-to-transplantation and Destination Therapy indications for use was fully approved by the FDA in May 2005. The device received CE Mark approval in November 2005, allowing for its commercial sale in Europe.

The CentriMag

The CentriMag, manufactured by Levitronix, is approved to provide mechanical circulatory support for up to 6 hours for patients suffering from severe, acute potentially reversible cardiac failure and is based on Levitronix s magnetically levitated bearingless motor technology. We entered into a distribution agreement with Levitronix in August 2006, with an initial term effective through December 2011, to distribute the CentriMag in the U.S. Levitronix expects to complete shortly three pilot trials in the U.S. to demonstrate safety in patients suffering from cardiogenic shock, experienced after cardiac surgery or acute myocardial infarction (AMI), and for patients requiring short-term right ventricular support. The CentriMag is 510(k) approved by the FDA for use in patients requiring short-term extracorporeal circulatory support during cardiac surgery and Levitronix has CE Mark approval in Europe to market the product to provide support for up to 14 days. Levitronix is currently in discussion with the FDA regarding an IDE to begin a pivotal trial to demonstrate safety and effectiveness of the CentriMag for any cardiac condition resulting in ventricular failure where there is an opportunity for recovery. These include but are not limited to AMI, post-cardiotomy cardiogenic shock, acute myocarditis, intractable ventricular arrhythmias, failed transplant and postpartum cardiomyopathy.

VAD Products Under Development

Our HeartMate III is a magnetically levitated centrifugal continuous flow pump. The original design goal for the device was 10 years or more of durability in patients with late-stage HF, including DT, BTT and therapeutic recovery. During the fourth quarter of 2006, we evaluated various options to enhance the clinical utility of HeartMate III, and during 2007, will be redefining its attributes to focus on unmet clinical needs.

Vascular Graft Products

The *Vectra* vascular access graft was approved for sale in the U.S. in December 2000 and in Europe in January 1998. It is designed for use as a shunt between an artery and a vein, primarily to provide access to the bloodstream for renal hemodialysis patients requiring frequent needle punctures during treatment.

ITC Segment

Our ITC segment offers a broad portfolio of point-of-care diagnostic test systems and incision products.

Point-of-Care Diagnostics

Our ITC point-of-care product lines consist of the following:

Hemochron point-of-care coagulation system;

Immediate Response Mobile Analysis (IRMA), point-of-care blood gas/electrolyte and chemistry system;

Avox point-of-care CO-oximetry systems;

ProTime coagulation monitoring system; and

Hemoglobin Pro system.

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Hospital point-of-care

The Hemochron, IRMA and Avox products are primarily sold into the hospital point-of-care segment of the market.

Hemochron is used to monitor a patient s coagulation while being administered anticoagulants in various settings, including in the cardiovascular operating room to monitor the drug Heparin and in an anticoagulation clinic to monitor the drug warfarin. The system consists of a small, portable analytical instrument and disposable test cuvettes.

IRMA is used to monitor a patient s blood gas/electrolyte and chemistry status. The system consists of a small, portable analytical instrument and disposable test cartridges.

Avox CO-oximeters are used to assess a patient s oxygenation status and are commonly used in the cardiac catherization lab, the ICU, the NICU and the emergency department. The system consists of a small, battery-operated instrument and disposable test cuvettes.

Alternate site point-of-care

The ProTime and Hemoglobin Pro products are sold into the alternate site point-of-care market comprised of physicians offices, long-term care facilities, clinics, visiting nurse associations, and home healthcare companies.

ProTime is used to monitor a patient s coagulation while taking oral anticoagulants such as warfarin, and can be prescribed to be used by the patient at home or in the physician s office or clinic. The system consists of a small, portable analytical instrument and disposable test cuvettes.

Hemoglobin Pro (Hgb Pro), is used by professionals, mainly in doctors offices, to test for anemia. It provides quick results from a very small blood sample. The system consists of a small, hand-held test meter and disposable test strips.

Growth in this market is based on convenience and ease of use for patients and physicians. In addition, in the case of the ProTime monitoring of oral anticoagulants, clinical studies have shown that more frequent monitoring results in patients that stay in their therapeutic range more often. More frequent monitoring is made possible by patients testing themselves at home, in addition to being tested in a doctor s office, when appropriate.

Incision Products

Our incision products are used to obtain a patient s blood sample for diagnostic testing. These products are sold to both the hospital and alternate site point of care markets. Our products offer certain advantages and command a premium over the competition and are sold in the higher end of the market. We sell the Tenderfoot to obtain a heel stick blood sample from an infant, the Tenderlett to obtain a blood sample from a finger and Surgicutt to perform screening tests to determine platelet function. Our growth in this segment is limited due to lower priced products competing for the same customers.

Product Segments

Our cardiac assist and vascular graft products and services represented 62%, 62% and 60% of our product sales in 2006, 2005, and 2004, respectively. Our point-of-care blood diagnostics test systems and services and incision products represented 38%, 38% and 40% of our total product sales in 2006, 2005, and 2004, respectively. For financial information related to our segments for each of the past three years, please see Item 8, Note 15 to our Consolidated Financial Statements.

SALES AND MARKETING

Circulatory Support Products

Hospitals that perform open heart surgery and heart transplants are the potential customers for our circulatory support products. We estimate that 136 of the approximately 1,000 hospitals in the U.S. that perform open-heart surgery also perform heart transplants. We actively market to heart transplant hospitals and large cardiac surgery centers as well as to the approximately 100 heart transplant hospitals in Europe.

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We have recruited and trained a direct sales force that, as of December 30, 2006, comprised of 20 experienced cardiovascular sales specialists who sell our circulatory support systems in the U.S., Canada, France, Germany, Spain, United Kingdom, Austria, Switzerland, Netherlands, Portugal and South Africa.

Thoratec s sales effort is complemented by nineteen direct clinical specialists and ten Market Development Managers. The clinical specialists conduct clinical educational seminars, assist with a new open-heart center s first VAD implant and resolve clinical questions or issues. Our Market Development Managers work with our leading VAD centers to generate referrals and increase awareness in the cardiology community regarding hemodynamic restoration therapy and VADs. We partner with universities, experienced clinicians and opinion leaders to assist with expanding clinical educational needs. Our sales team focuses on cardiac surgeons that perform heart transplantation, perfusionists and the transplant nursing staff.

In addition to our direct selling efforts, we have a network of international distributors who cover those markets representing the majority of our remaining VAD sales potential. Our sales and marketing tactics include direct mail, education seminars, symposia, equipment purchase and lease programs and journal advertisements, all common in the cardiovascular device market.

Hospitals and other medical institutions that acquire a VAD system generally purchase VAD pumps, related disposables and training materials, and purchase or rent two of the associated pump drivers (to ensure that a backup driver is available). The time from the initial contact with the cardiac surgeon until purchase is generally between nine and eighteen months, due to the expense of the product and common hospital capital equipment acquisition procedures. Upon receipt of a purchase order, we usually ship the product within thirty days to meet the surgeons requirements.

The introduction of a VAD system in a hospital or other medical facility requires that the surgical and clinical support personnel possess certain product expertise. We provide initial training and best practice instruction for these personnel, along with a variety of training materials that accompany the initial delivery of our VAD products, including instructions for use, patient management manuals and assorted videos. We provide clinical support during implants and provide 24-hour access to clinically trained personnel. In addition, our sales force helps customers understand and manage reimbursement from third-party payors.

Vascular Graft Products

We market the *Vectra* through C.R. Bard Corporation (a competitor of ours) in the U.S., and selected countries in Europe, the Middle East and Northern Africa and through Goodman Co. Ltd. in Japan. In December 22, 2006, we modified our distributor agreement to continue exclusive distribution by C.R. Bard Corporation of this product until December 31, 2007.

Point-of-Care Diagnostics

In 2005, ITC completed the process of establishing a direct sales force in the U.S. to sell our hospital point-of-care coagulation and IRMA products. The Avox products have been added to the direct sales force s responsibilities as a result of our acquisition of Avox in October 2006. We currently maintain a direct sales staff of approximately 30 people in the U.S. that sell directly to hospitals. In the alternate site market segment, we have 16 sales people that sell through national and regional distributors, such as Cardinal Health, Inc., Quality Assured Services, Inc., Physician Sales and Service, Inc. and Caligor, A Henry Schein Company. Outside the U.S., ITC has four salespeople selling principally to third party distributors.

As we have integrated the IRMA product line of blood gas analyzers into our business, an increasing portion of our revenue in the U.S. market has been generated by direct sales rather than through distributors. This shift has required expanding the sales, technical service, customer service and shipping headcount at ITC to provide our customers with the support and service historically provided by our distributors.

Incision Products

Our incision products are sold worldwide by distributors. In 2006, our largest incision distributor in the U.S. market is Cardinal Healthcare. In September 2006, we added Fisher Scientific as a distributor of Tenderfoot in the U.S.

COMPETITION

Competition from medical device companies and medical device divisions of health care and pharmaceutical companies is intense and is expected to increase. In our cardiovascular division, we are expecting new VAD competitors, Ventracor Limited and Heartware Limited to begin new clinical trials in the U.S. in 2007. Our incumbent competitors include AbioMed, Inc., Jarvik Heart, Inc., SynCardia

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Systems, Inc., and WorldHeart Corporation in the U.S. and Europe and Berlin Heart AG and MicroMed Technology, Inc. in Europe. In the vascular graft market, our principal competitors include Boston Scientific Corporation, C.R. Bard Corporation and W.L. Gore, Inc. Principal competitors in the hospital coagulation and blood gas monitoring equipment market include the Cardiac Surgery Division of Medtronic, Inc., the Diagnostic Division of Abbott Laboratories, Instrumentation Laboratory Company and Radiometer A/S. Our primary competitor in the skin incision device market is Becton Dickson and Company. Competitors in the alternate site point-of-care diagnostics market include HemoSense, Inc. and Roche Diagnostics.

We believe that key competitive factors include the relative speed with which we can develop products, complete clinical testing, receive regulatory approvals, achieve market acceptance and manufacture and sell commercial quantities of our products.

For the BTT and Destination Therapy indications, we estimate that we have a majority of the VAD market domestically and internationally. We believe that potential competitors are several years away from completion of the clinical trials required before their products will become commercially available and compete with our products in the U.S. In addition, unless our competitors products result in significantly better outcomes than our products, we believe that absent any compelling reason, cardiac centers will not generally change suppliers.

Large medical device companies dominate the markets in which our ITC business competes. We estimate that we hold anywhere from approximately 5% to 60% market share, depending on the product. We expect that our growth in this market will be generated by gaining market share and from a shift of testing from central laboratories to the hospital and alternate site point-of-care. However, this market segment is very competitive, and includes the following potential drivers:

New competitors might enter the market with broader test menus. To address this risk, in late 2003 we acquired the IRMA product line of blood gas/electrolyte and chemistry tests, and in the fourth quarter of 2006, we acquired Avox, which has significantly increased our test menu offering, and also offers us the opportunity to develop the next generation system that combines blood gas, electrolyte and oxygenation testing in one machine.

New drug therapies under development may not require the intense monitoring of a patient s coagulation necessary with the current anti-coagulation drug of choice, Heparin. To try to mitigate this risk, we participate in clinical trials with key pharmaceutical companies to provide the hemostasis monitoring that will ultimately be required for new drug therapies.

PATENTS AND PROPRIETARY RIGHTS

We seek to patent certain aspects of our technology. We hold, or have exclusive rights to, several U.S. and foreign patents. Except for the patents mentioned below and one patent pertaining to the TLC-II, the Thoratec VAD system is not protected by any other patents. We do not believe that this lack of patent protection will have a material adverse effect on our ability to sell our VAD system because of the lengthy regulatory period required to obtain approval of a VAD. Several patents cover aspects of our HeartMate line of products.

Several patents cover aspects of our proprietary biomaterials technology. Aspects of our blood coagulation, blood gas, blood electrolytes, blood chemistry, and skin incision device products are covered by patents directed to tube-and micro-coagulation whole blood analysis, including test methods, reagents and integral (on-board) controls, thick film electrochemical analysis of blood gases, blood electrolytes, and blood chemistry, and low trauma skin incision devices for capillary blood sampling, and methods of manufacturing such devices. The duration remaining of some of our biomaterials patents ranges from three to eight years, on our grafts from one to fourteen years and on our blood coagulation, blood gas, blood electrolytes, blood chemistry, and skin incision products from two to 16 years. During the term of our patents, we have the right to prevent third parties from manufacturing, marketing or distributing products that infringe upon our patents. ITC acquired a patent for cuvette technology from Avox, the remaining duration of which is approximately 6 years.

In addition, we hold several patents on the HeartMate II axial blood flow pump and transcutaneous energy transmission technology, the remaining duration of which ranges from eight to 15 years. In August 1998, we obtained a license to incorporate technology developed by Sulzer Electronics Ltd. and Lust Antriebstechnik GmbH into the

HeartMate III. HeartMate III is a miniature centrifugal pump featuring a magnetically levitated rotor with a bearingless motor that was originally developed by Sulzer and Lust. The license from Sulzer and Lust gives us the exclusive right to use in our HeartMate products technology protected by several U.S. and foreign patents covering implantable bearingless motors for the duration of those patents, subject to our payment of royalties. In December 2000, we were informed by Sulzer Electronics that it had sold all of its business in the bearingless motor and magnetic bearing fields to Levitronix GMBH and had assigned its portion of the agreements between Sulzer and us to Levitronix. We believe that the license remains in full force and effect.

We also hold, or have exclusive rights to, several international patents.

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We have developed technical knowledge that, although non-patentable, we consider to be significant in enabling us to compete. It is our policy to enter into confidentiality agreements with each of our employees prohibiting the disclosure of any confidential information or trade secrets. In addition, these agreements provide that any inventions or discoveries by employees relating to our business will be assigned to us and become our sole property.

Despite our patent rights and policies with regard to confidential information, trade secrets and inventions, we may be subject to challenges to the validity of our patents, claims that our products allegedly infringe the patent rights of others and the disclosure of our confidential information or trade secrets. These and other related risks are described more fully under the heading *Our inability to protect our proprietary technologies or an infringement of others patents could harm our competitive positions* in the Risk Factors section of this Annual Report on Form 10-K.

At this time, we are not a party to any material legal proceedings that relate to patents or proprietary rights.

GOVERNMENT REGULATIONS

Regulation by governmental authorities in the United States and foreign countries is a significant factor in the manufacture and marketing of our current and future products and in our ongoing product research and development activities. All of our proposed products will require regulatory approval prior to commercialization. In particular, medical devices are subject to rigorous pre-clinical testing as a condition of approval by the FDA and by similar authorities in foreign countries.

U.S. Regulations

In the U.S., the FDA regulates the design, manufacture, distribution and promotion of medical devices pursuant to the Federal Food, Drug, and Cosmetic Act and its regulations. Our VAD systems, blood coagulation testing devices, skin incision devices, and *Vectra* graft products are regulated as medical devices. To obtain FDA approval to market VADs similar to those under development, the FDA requires proof of safety and efficacy in human clinical trials performed under an IDE. An IDE application must contain pre-clinical test data supporting the safety of the product for human investigational use, information on manufacturing processes and procedures, proposed clinical protocols and other information. If the IDE application is accepted, human clinical trials may begin. The trials must be conducted in compliance with FDA regulations and with the approval of one or more institutional review boards. The results obtained from these trials, if satisfactory, are accumulated and submitted to the FDA in support of either a PMA application, or a 510(k) premarket notification. There are substantial user fees that must be paid at the time of PMA, PMA Supplement or 510(k) submission to the FDA to help offset the cost of scientific data review that is required before the FDA can determine if the device is approvable. PMA from the FDA is required before commercial distribution of devices similar to those under development by us is permitted in the U.S.

A PMA Supplement is required to make modifications to a device or application approved by a PMA. A PMA Supplement must be supported by extensive preclinical data, and sometimes human clinical data, to prove the safety and efficacy of the device with respect to the modifications disclosed in the supplement. By regulation, the FDA has 180 days to review a PMA application, during which time an advisory committee may evaluate the application and provide recommendations to the FDA. While the FDA has approved PMA applications within the allotted time period, reviews can occur over a significantly protracted period, in some cases up to 18 months or longer, and a number of devices have never been cleared for marketing. This is a lengthy and expensive process and there can be no assurance that FDA approval will be obtained.

Under the FDA s requirements, if a manufacturer can establish that a newly developed device is substantially equivalent to a legally marketed predicate device, the manufacturer may seek marketing clearance from the FDA to market the device by filing with the FDA a 510(k) premarket notification with the FDA. This is the process that is used to gain FDA market clearance for most of ITC s products. The 510(k) premarket notification must be supported by data establishing the claim of substantial equivalence to the satisfaction of the FDA. The process of obtaining a 510(k) clearance typically can take several months to a year or longer. If substantial equivalence cannot be established, or if the FDA determines that the device should be subjected to a more rigorous review, the FDA will require that the manufacturer submit a PMA application that must be approved by the FDA prior to marketing the device in the U.S.

Both a 510(k) and a PMA, if approved, may include significant limitations on the indicated uses for which a product may be marketed. FDA enforcement policy prohibits the promotion of approved medical devices for

unapproved uses. In addition, product approvals can be withdrawn for failure to comply with regulatory requirements or the occurrence of unforeseen problems following initial marketing.

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On October 26, 2002, the FDA signed into law The Medical Device User Fee and Modernization Act of 2002. This law amends the FDA Act and regulations to provide, among other things, the ability of the FDA to impose user fees for medical device reviews. Our activities require that we make many filings with the FDA that are subject to this fee structure. Although the precise amount of fees that we will incur each year will be dependent upon the specific quantity and nature of our filings, these fees could be a significant amount per year.

In addition, any products distributed pursuant to the above authorizations are subject to continuing regulation by the FDA. Products must be manufactured in registered establishments and must be manufactured in accordance with Quality System Regulations. Adverse events must be reported to the FDA. Labeling and promotional activities are subject to scrutiny by the FDA and, in certain instances, by the Federal Trade Commission. The FDA often requires post market surveillance (PMS), for significant risk devices, such as VADs, that require ongoing collection of clinical data during commercialization that must be gathered, analyzed and submitted to the FDA periodically for up to several years. These PMS data collection requirements are often burdensome and expensive and have an effect on the PMA approval status. The failure to comply with the FDA s regulations can result in enforcement action, including seizure, injunction, prosecution, civil penalties, recall and/or suspension of FDA approval. The export of devices such as ours is also subject to regulation in certain instances.

We are also subject to regulation by various state authorities, which may inspect our facilities and manufacturing processes and enforce state regulations. Failure to comply with applicable state regulations may result in seizures, injunctions or other types of enforcement actions.

International Regulations

We are also subject to regulation in each of the foreign countries where our products are sold. These regulations relate to product standards, packaging and labeling requirements, import restrictions, tariff regulations, duties and tax requirements. Many of the regulations applicable to our products in these countries are similar to those of the FDA. The national health or social security organizations of certain countries require our products to be qualified before they can be marketed in those countries.

In order to be positioned for access to European and other international markets, we sought and obtained certification under the International Standards Organization (ISO) 13485 standards. ISO 13485 is a set of integrated requirements, which when implemented form the foundation and framework for an effective quality management system. These standards were developed and published by the ISO, a worldwide federation of national bodies, founded in Geneva, Switzerland in 1947. ISO has more than 90 member countries and ISO certification is widely regarded as essential to enter Western European markets. We obtained EN ISO 13485:2003 Certification in February 2006. Since 1998, all companies are required to obtain CE Marks for medical devices sold or distributed in the European Union. The CE Mark is an international symbol of quality. With it, medical devices can be distributed within the European Union. A prerequisite for obtaining authority to CE Mark products is to achieve full quality system certification in accordance with ISO 13485 and European Directives, such as the Medical Device Directive (MDD), In-Vitro Device Directive (IVDD) and the Active Implantable Medical Device Directive (AIMD). These are quality standards that cover design, production, installation and servicing of medical devices manufactured by us. We have the ISO 13485 and appropriate MDD, IVDD or AIMD certification and authority to CE Mark all our devices in commercial distribution, including our skin incision devices, blood coagulation testing devices, *Vectra* graft and VAD systems such as the PVAD, IVAD and HeartMate Systems. We are also certified to be in compliance with the requirements of the Canadian Medical Device Regulations at all Thoratec manufacturing sites, which certification is required to sell medical devices in Canada.

Other Regulations

We are also subject to various federal, state and local laws and regulations relating to such matters as safe working conditions, laboratory and manufacturing practices and the use, handling and disposal of hazardous or potentially hazardous substances used in connection with our research and development work and manufacturing. Specifically, the manufacture of our biomaterials is subject to compliance with federal environmental regulations and by various state and local agencies. Although we believe we are in compliance with these laws and regulations in all material respects, we cannot provide assurance that we will not be required to incur significant costs to comply with environmental laws or regulations in the future.

THIRD PARTY REIMBURSEMENT AND COST CONTAINMENT

Our products are purchased primarily by customers, such as hospitals who then bill various third party payors for the services provided to the patients. These payors, which include CMS, private health insurance companies and managed care organizations, reimburse part or all of the reasonable costs and fees associated with these devices and the procedures performed with these devices.

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To date, CMS and a majority of private insurers with whom we have dealt approved reimbursement for our VADs and our diagnostic and vascular graft products. Effective October 1, 2003, CMS issued a National Coverage Decision Memorandum for the use of the HeartMate XVE for treating Destination Therapy in late-stage HF patients. Sixty-nine centers are now recognized by CMS as Medicare DT centers.

Effective October 1, 2006, Medicare reimbursement payment increased for heart assist devices with CMS LVAD centers receiving an average payment of approximately $143,000 in 2006 as compared to approximately $136,000 in 2005. Twenty-six new Healthcare Common Procedure Coding System codes also have been created by CMS to provide reimbursement for outpatient equipment and supplies. Since FDA approval of the HeartMate XVE for Destination Therapy, several private payors also have issued positive coverage decisions. In December 2002, Blue Cross/Blue Shield Technology Evaluation Center agreed to cover the use of VADs for Destination Therapy. The majority of local Blue Cross and Blue Shield plans cover procedures for both bridge-to-transplantation and long-term therapy indications. Since December 2002, the majority of national insurance carriers, including Aetna, Cigna, Humana, United Health Group and UNICARE, have policies covering the use of ventricular assist devices for FDA-approved indications, including DT.

MANUFACTURING

Our Cardiovascular segment products are manufactured at our facility in Pleasanton, California. This facility has been inspected, approved and licensed by the FDA and the State of California Department of Health Services, Food and Drug Section for the manufacture of medical devices and has received the ISO 13485:2300 Quality Systems certification. Our manufacturing processes consist of the assembling standard and custom component parts, and the testing of completed products. We rely on single sources of supply for several components of our VADs. We are aware of alternative suppliers for a majority, but not all, of our single-sourced items. The CentriMag is manufactured by Levitronix.

Our ITC segment blood coagulation testing and skin incision devices are manufactured in Edison, New Jersey, with the exception of the ProTime instrument and the hemoglobin monitor, which are manufactured through single source third party contract manufacturers in China and Germany, respectively. Our blood gas analyzer devices are manufactured in Roseville, Minnesota. The New Jersey and Minnesota facilities have been inspected, approved and licensed by the FDA and applicable state regulators. In addition, these facilities maintain ISO 9001, ISO 13485 and Canadian (CMDCAS) ISO certifications.

A significant amount of our ITC segment manufacturing at these facilities is vertically integrated, with only limited reliance on third parties, such as for the manufacture of printed circuit boards and the sterilization and testing of products. We rely on single sources of supply for some components manufactured at our New Jersey and Minnesota facilities, and use safety stocks where there might be risk in qualifying a second supplier in a timely manner.

Avox CO-oximetry instruments and disposable cuvettes are currently manufactured at the Avox facility in San Antonio, Texas. ITC expects to relocate Avox manufacturing to ITC s existing facilities in New Jersey during 2007. The Avox products rely on third parties for materials and electronic components, some of which have only one supplier. We use safety stocks where there might be a risk in qualifying a second supplier in a timely manner.

Both Cardiovascular and ITC have typically been able to fill orders from inventory and historically have not had significant order backlogs. We expanded manufacturing capacity for both Cardiovascular and ITC during 2006 and 2005 to accommodate the increased demand for our products and this has reduced our backlog significantly. Total backlog as of the end of fiscal 2006 and 2005 was none and approximately $1.2 million for our Cardiovascular segment and $0.2 million and $0.5 million for our ITC segment, respectively.

RESEARCH AND DEVELOPMENT

Thoratec s research and development expenses in 2006, 2005 and 2004 totaled $39.8 million, $32.3 million and $28.7 million, respectively. Research and development costs are largely project driven, and the level of spending depends on the level of project activity planned and subsequently approved and conducted. The primary component of our research and development costs is employee salaries and benefits. Projects related to our Cardiovascular segment typically include clinical trials, such as our HeartMate II pivotal trial, efforts to develop new products, such as the HeartMate II and HeartMate III, and efforts to improve the operation and performance of current products, such as efforts to improving the life of various components of our VAD products. ITC research and development projects

typically involve developing instruments and disposable test cuvettes or cartridges that will be used at the point-of-care. One such system is the Hemochron Signature Elite, which was introduced in September 2005. In addition, ITC devotes research and development efforts to maintain and improve current products based on customer feedback. Research and development costs for both segments also include regulatory and clinical costs associated with our compliance with FDA regulations and clinical trials such as the Phase II HeartMate II pivotal trial.

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MAJOR CUSTOMERS AND FOREIGN SALES

We sell our products primarily to large hospitals and distributors. No customer accounted for more than 10% of total product sales in fiscal year 2006.

Sales originating outside the U.S. and U.S. export sales accounted for approximately 24%, 23% and 23% of our total product sales for fiscal years 2006, 2005 and 2004, respectively. No individual foreign country accounted for a material portion of our net sales in any of the last three fiscal years.

EMPLOYEES

As of December 30, 2006, we had a total of 934 employees, consisting of 925 full-time employees and 9 part-time employees. Of our total employees, 909 are employed in the U.S. and 25 are employed in the United Kingdom and other European countries. None of our employees is covered by a collective bargaining agreement. We consider relations with our employees to be good.

ADDITIONAL INFORMATION

Additional information about Thoratec is available on our website at http://www.thoratec.com (although none of this information is, or should be deemed to be, incorporated by reference into this Annual Report on Form 10-K). We make filings of our periodic reports to the Securities and Exchange Commission (SEC), including annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, as well as amendments to those reports, available free of charge on our website as soon as reasonably practicable following electronic filing of those reports with the SEC.

Item 1A. ***Risk Factors***

Our businesses face many risks. These risks include those related to the development of new products and markets including Destination Therapy, the growth of existing markets for our products, customer and physician acceptance of our products ,and changes in the mix of our product sales, and the related gross margin for such product sales, the results of clinical trials, including those for the HeartMate II, the ability to improve financial performance, regulatory approval processes, the effect of healthcare reimbursement and coverage policies, the effects of price competition from any of our competitors and the effects of any merger and acquisition related activities. The risks described below are what we believe to be the material risks facing our company, however, they may not be the only risks we face. Additional risks that we do not yet know of or that we currently believe are immaterial may also impair our business operations. If any of the events or circumstances described in the following risk factors actually occur, our business, financial condition or results of operations could suffer, and the trading price of our common stock could decline significantly. Investors should consider the following risks, as well as the other information included in this Annual Report on Form 10-K, and other documents we file from time to time with the SEC, such as our quarterly reports on Form 10-Q, our current reports on Form 8-K and any public announcements we make from time to time.

If we fail to obtain approval from the FDA and from foreign regulatory authorities, we cannot market and sell our products under development in the U.S. and in other countries, and if we fail to adhere to ongoing FDA Quality System Regulations, the FDA may withdraw our market clearance or take other action.

Before we can market new products in the U.S., we must obtain PMA approval or 510(k) clearance from the FDA. This process is lengthy and uncertain. In the U.S., one must obtain clearance from the FDA of a 510(k) pre-market notification or approval of a more extensive submission known as a PMA application. If the FDA concludes that any of our products does not meet the requirements to obtain clearance under Section 510(k) of the Federal Food, Drug, and Cosmetic Act, then we will be required to file a PMA application. The process for a PMA application is lengthy, expensive and typically requires extensive pre-clinical and clinical trial data.

We may not obtain clearance of a 510(k) notification or approval of a PMA application with respect to any of our products on a timely basis, if at all. If we fail to obtain timely clearance or approval for our products, we will not be able to market and sell them, thereby harming our ability to generate sales. The FDA also may limit the claims that we can make about our products. We also may be required to obtain clearance of a 510(k) notification or a PMA Supplement from the FDA before we can market products which have already been cleared, but which have since been modified or we subsequently wish to market for new disease indications.

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The FDA also requires us to adhere to Quality System Regulations, which include production design controls, testing, quality control, and storage and documentation procedures. The FDA may at any time inspect our facilities to determine whether we have adequate compliance. Compliance with Quality System Regulations for medical devices is difficult and costly. In addition, we may not be found compliant as a result of future changes in, or interpretations of, regulations by the FDA or other regulatory agencies. If we do not achieve compliance, the FDA may withdraw marketing clearance, require product recall or take other enforcement action, which in each case would harm our business. Any change or modification to a device is required to be made in compliance with Quality System Regulations, which compliance may cause interruptions or delays in the marketing and sale of our products. The FDA also requires device manufacturers to submit reports regarding deaths, serious injuries and certain malfunctions relating to use of their products.

Sales of our products outside the U.S. are subject to foreign regulatory requirements that vary from country to country. The time required to obtain approvals from foreign countries may be longer or shorter than that required for FDA approval, and requirements for foreign licensing may differ from FDA requirements. In any event, if we fail to obtain the necessary approvals to sell any of our products in a foreign country, or if any obtained approval is revoked or suspended, we will not be able to sell those products there.

The federal, state and foreign laws and regulations regarding the manufacture and sale of our products are subject to future changes, as are administrative interpretations and policies of regulatory agencies. If we fail to comply with applicable federal, state or foreign laws or regulations, we could be subject to enforcement actions. Enforcement actions could include product seizures, recalls, withdrawal of clearances or approvals, and civil and criminal penalties, which in each case would harm our business.

If hospitals do not conduct Destination Therapy procedures using our VADs, market opportunities for our product will be diminished.

The use of certain of our VADs as long-term therapy in patients who are not candidates for heart transplantation (i.e., Destination Therapy patients) was approved by the FDA in 2002, and was approved for reimbursement by CMS in late 2003.

The number of Destination Therapy procedures actually performed depends on many factors, many of which are out of our direct control, including:

- the number of CMS sites approved for Destination Therapy;
- the clinical outcomes of Destination Therapy procedures;
- cardiologists and referring physicians education regarding, and their commitment to, Destination Therapy;
- the economics of the Destination Therapy procedure for individual hospitals, which include the costs of the VAD and related pre- and post-operative procedures and their reimbursement;
- the impact of changes in reimbursement rates on the timing of purchases of VADs for Destination Therapy; and
- the economics for individual hospitals of not conducting a Destination Therapy procedure, including the costs and related reimbursements of long-term hospitalization.

The different outcomes of these and other factors, and their timing, will have a significant impact on our future Cardiovascular product sales.

Physicians may not accept or continue to accept our current products and products under development.

The success of our current and future products will require acceptance or continued acceptance by cardiovascular and vascular surgeons, and other medical professionals. Such acceptance will depend on clinical results and the conclusion by these professionals that our products are safe, cost-effective and acceptable methods of treatment. Even if the safety and efficacy of our future products are established, physicians may elect not to use them for a number of reasons. These reasons could include the high cost of our VAD systems, restrictions on insurance coverage,

unfavorable reimbursement from health care payors, or use of alternative therapies. Also, economic, psychological, ethical and other concerns may limit general acceptance of our ventricular assist, graft and other products.

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We rely on specialized suppliers for certain components and materials in our products and alternative suppliers may not be available.

We depend on a number of custom-designed components and materials supplied by other companies including, in some cases, single source suppliers for components, instruments and materials used in our VAD products and blood testing products. For example, single sources currently manufacture and supply our ProTime and Hemoglobin instruments and the heart valves used in our HeartMate XVE product. The suppliers of our ProTime and Hemoglobin products are located in China and Germany, respectively. We do not have long-term written agreements with most of our vendors and receive components from these vendors on a purchase order basis only. If we need alternative sources for key raw materials or component parts for any reason, such alternative sources may not be available and our inventory may not be sufficient to fill orders before we find alternative suppliers or begin manufacturing these components or materials ourselves. Cessation or interruption of sales of circulatory support products or our point-of-care products would seriously harm our business, financial condition and results of operations.

Alternative suppliers, if available, may not agree to supply us. In addition, FDA approval may be required before using new suppliers or manufacturing our own components or materials which can take additional time to procure. Existing suppliers could also become subject to an FDA enforcement action, which could also disrupt our supplies. If alternative suppliers are not available, we may not have the expertise or resources necessary to produce these materials or component parts internally.

Because of the long product development cycle in our business, suppliers may discontinue components upon which we rely before the end of life of our products. In addition, the timing of the discontinuation may not allow us time to develop and obtain FDA approval for a replacement component before we exhaust our inventory of the legacy component.

If suppliers discontinue components on which we rely, we may have to:

pay premium prices to our suppliers to keep their production lines open or to obtain alternative suppliers;

buy substantial inventory to last through the scheduled end of life of our product, or through such time that we will have a replacement product developed and approved by the FDA; or

stop shipping the product in which the legacy component is used once our inventory of the discontinued component is exhausted.

Any of these interruptions in the supply of our materials could result in substantial reductions in product sales and increases in our production costs.

We may encounter problems manufacturing our products.

We may encounter difficulties manufacturing products in quantities sufficient to meet demand. We do not have experience in manufacturing some of our products in the commercial quantities that might be required if we receive FDA approval of those products and indications currently under development, including the HeartMate II. If we have difficulty manufacturing any of our products, our sales may prove lower than would otherwise be the case and our reputation could be harmed.

Identified quality problems can result in substantial costs and write-downs.

FDA regulations require us to track materials used in the manufacture of our products, so that any problems identified in a finished product can easily be traced back to other finished products containing the defective materials. In some instances, identified quality issues require scrapping or expensive rework of the affected lot(s), not just the tested defective product, and could also require us to stop shipments.

In addition, since some of our products are used in situations where a malfunction can be life threatening, identified quality issues can result in the recall and replacement, generally free of charge, of substantial amounts of product already implanted or otherwise in the marketplace.

Any identified quality issue can therefore both harm our business reputation and result in substantial costs and write-offs, which in either case could materially harm our business and financial results.

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If we fail to successfully introduce new products, our future growth may suffer.

As part of our growth strategy, we intend to develop and introduce a number of new products and product improvements. We also intend to develop new indications for our existing products. For example, we are currently developing updated versions of our HeartMate and Point-of-Care blood diagnostics products. If we fail to commercialize any of these new products, product improvements and new indications on a timely basis, or if they are not well accepted by the market, our future growth may suffer.

Our inability to protect our proprietary technologies or an infringement of others patents could harm our competitive position.

We rely on patents, trade secrets, copyrights, know-how, trademarks, license agreements and contractual provisions to establish our intellectual property rights and protect our products. These legal means, however, afford only limited protection and may not adequately protect our rights. In addition, we cannot assure you that any of our pending patent applications will issue. The U.S. Patent and Trademark Office may deny or significantly narrow claims made under patent applications and the issued patents, if any, may not provide us with commercial protection. We could incur substantial costs in proceedings before the U.S. Patent and Trademark Office or in any future litigation to enforce our patents in court. These proceedings could result in adverse decisions as to the validity and/or enforceability of our patents. In addition, the laws of some of the countries in which our products are or may be sold may not protect our products and intellectual property to the same extent as U.S. laws, if at all. We may be unable to protect our rights in trade secrets and unpatented proprietary technology in these countries.

Our commercially available VAD products generally are not protected by any patents. We rely principally on trade secret protection and, to a lesser extent, patents to protect our rights to the HeartMate XVE and HeartMate II product lines. We rely principally on patents to protect our coagulation testing equipment, skin incision devices, Hemochron disposable cuvettes, IRMA analyzer, IRMA disposable cartridges, and Hgb Pro disposable test strips.

We seek to protect our trade secrets and unpatented proprietary technology, in part, with confidentiality agreements with our employees and consultants. Although it is our policy to require that all employees and consultants sign such agreements, we cannot assure you that every person who gains or has gained access to such information has done or will do so. Moreover, these agreements may be breached and we may not have an adequate remedy.

Our products may be found to infringe prior or future patents owned by others. We may need to acquire licenses under patents belonging to others for technology potentially useful or necessary, and such licenses may not be available to us. We could incur substantial costs in defending suits brought against us on such patents or in bringing suits to protect our patents or patents licensed by us against infringement.

Our future Cardiovascular product sales will be affected by the number of heart transplants conducted.

A significant amount of our product sales are generated by our VADs implanted temporarily in patients awaiting heart transplants. The number of heart transplants conducted worldwide depends on the number of hearts available to transplant.

Our future disposable cuvette test product sales by ITC could be affected by changes in monitoring requirements for medical procedures.

ITC product sales are generated by medical procedures that require monitoring of coagulation and blood gas parameters done in cardiovascular operating rooms and cardiac catheterization labs. The sales of our disposable test products could decline if there were a significant reduction in those medical procedures.

Since we depend upon distributors, if we lose a distributor or a distributor fails to perform, our operations may be harmed.

With the exception of Canada and the larger countries in Europe, we sell our PVAD, IVAD and HeartMate systems in foreign markets through distributors. In addition, we sell our vascular access graft products through the Bard Peripheral Vascular division of C.R. Bard Corporation (which is also a competitor of ours) in the U.S. and selected countries in Europe, the Middle East and Africa, and through Goodman Co. Ltd. in Japan. Substantially all of the international operations and a large portion of the alternate site domestic operations of ITC are conducted through distributors. For the year ended December 30, 2006, 58% of ITC s total product sales were through distributors.

To the extent we rely on distributors, our success will depend upon the efforts of others, over which we may have little or no control. If we lose a distributor or a distributor fails to perform to our expectations, our product sales may

be harmed.

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If we fail to compete successfully against our existing or potential competitors, our product sales or operating results may be harmed.

Competition from medical device companies and medical device subsidiaries of health care and pharmaceutical companies is intense and is expected to increase. In our cardiovascular division, our competitors include AbioMed, Inc., Jarvik Heart, Inc., SynCardia Systems, Inc. and WorldHeart Corporation in the U.S and Europe. In the European market, competitors include Berlin Heart AG and MicroMed Technology, Inc. Eventually we also expect to compete with other, smaller companies that have similar products in trials. Principal competitors in the vascular graft market include C.R. Bard Corporation and W.L. Gore, Inc. which is also a distributor of our *Vectra* product line, and Boston Scientific Corporation. Principal competitors in the hospital coagulation and blood gas monitoring equipment market include the Cardiac Surgery Division of Medtronic, Inc., the Diagnostic Division of Abbott Laboratories, Instrumentation Laboratory Company and Radiometer A/S. Our primary competitor in the skin incision device market is Becton Dickson and Company. Competitors in the alternate site point-of-care diagnostics market include Roche Diagnostics and HemoSense, Inc.

Some of our competitors, especially those of our ITC segment, have substantially greater financial, technical, distribution, marketing and manufacturing resources, while other competitors have different technologies that may achieve broader customer acceptance or better cost structures than our products. Accordingly, our competitors may be able to develop, manufacture and market products more efficiently, at a lower cost and with more market acceptance than we can. In addition, new drugs or other devices may reduce the need for VADs. We expect that the key competitive factors will include the relative speed with which we can:

develop products;

complete clinical testing;

receive regulatory approvals;

achieve market acceptance; and

manufacture and sell commercial quantities of products.

Large medical device companies dominate the markets in which ITC competes. We expect that any growth in this market will come from expanding our market share at the expense of other companies and from testing being shifted away from central laboratories to the hospital and alternate site point-of-care. However, this market segment is very competitive and includes the following potential drivers:

New drug therapies under development may not require the intense monitoring of a patient s coagulation that the current anti-coagulation drug of choice (Heparin) requires.

New competitors might enter the market with broader test menus.

Any of the devices of our competitors in clinical trials and in development could prove to be clinically superior, easier to implant, and/or less expensive than current commercialized devices, thereby impacting Thoratec s market share.

Our non-U.S. sales present special risks.

A substantial portion of our total sales occurs outside the U.S. We anticipate that sales outside the U.S. and U.S. export sales will continue to account for a significant percentage of our product sales and we intend to continue to expand our presence in international markets. Non-U.S. sales are subject to a number of special risks. For example:

we sell some of our products at a lower price outside the U.S.;

sales agreements may be difficult to enforce;

receivables may be difficult to collect through a foreign country s legal system;

foreign customers may have longer payment cycles;

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foreign countries may impose additional withholding taxes or otherwise tax our foreign income, impose tariffs or adopt other restrictions on foreign trade;

U.S. export licenses may be difficult to obtain;

intellectual property rights may be (and often are) more difficult to enforce in foreign countries;

terrorist activity or war may interrupt distribution channels or adversely impact our customers or employees; and

fluctuations in exchange rates may affect product demand and adversely affect the profitability, in U.S. dollars, of products sold in foreign markets where payments are made in local currencies.

Any of these events could harm our operations or financial results.

Fluctuations in foreign currency exchange rates could result in declines in our reported sales and earnings.

Because some of our international sales are denominated in local currencies and not in U.S. dollars, our reported sales and earnings are subject to fluctuations in foreign currency exchange rates. At present, we use forward foreign currency contracts to hedge the gains and losses created by the re-measurement of non-functional currency denominated assets and liabilities. However, we do not hedge foreign currency exposures that will arise from future sales. As a result, sales occurring in the future that are denominated in foreign currencies may be translated into U.S. dollars at a less favorable rate than our current exchange rate environment resulting in reduced revenues and earnings.

The long and variable sales and deployment cycles for our VAD systems may cause our product sales and operating results to vary significantly, which increases the risk of an operating loss for any given fiscal period.

Our VAD systems have lengthy sales cycles and we may incur substantial sales and marketing expenses and expend significant effort without making a sale. Even after making the decision to purchase our VAD systems, our customers often deploy our products slowly. For example, the length of time between initial contact with cardiac surgeons and the purchase of our VAD systems is generally between nine and eighteen months. In addition, cardiac centers that buy the majority of our products are usually led by cardiac surgeons who are heavily recruited by competing centers or by centers looking to increase their profiles. When one of these surgeons moves to a new center we sometimes experience a temporary but significant reduction in purchases by the departed center while it replaces its lead surgeon. As a result, it is difficult for us to predict the quarter in which customers may purchase our VAD systems and our product sales and operating results may vary significantly from quarter to quarter, which increases the risk of an operating loss for us for any given quarter. In particular, sales of our VADs for Destination Therapy have been lower than we had originally anticipated, and we cannot predict when, if ever, sales of our VADs for this indication will generate the level of revenues we expect.

Since our physician and hospital customers depend on third party reimbursement, if third party payors fail to provide appropriate levels of reimbursement for our products, our results of operations will be harmed.

Significant uncertainty exists as to the reimbursement status of newly approved health care products such as VADs and vascular grafts. This uncertainty could delay or prevent adoption by hospitals of these products in volume. Government and other third party payors are increasingly attempting to contain health care costs. Payors are attempting to contain costs by, for example, limiting coverage and the level of reimbursement of new therapeutic products. Payors are also attempting to contain costs by refusing, in some cases, to provide any coverage for uses of approved products for disease indications other than those for which the FDA has granted marketing approval.

To date, a majority of private insurers with whom we have been involved and the CMS have determined to reimburse some portion of the cost of our VADs and our diagnostic and vascular graft products, but we cannot estimate what portion of such costs will be reimbursed, and our products may not continue to be approved for reimbursement. In addition, changes in the health care system may affect the reimbursability of future products. If coverage were partially or completely reduced, our revenues and results of operations would be harmed.

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Our debt obligations expose us to risks that could adversely affect our business, operating results and financial condition.

We have a substantial level of debt in the form of our senior subordinated convertible notes. The terms of our senior subordinated convertible notes do not restrict our ability to incur additional indebtedness, including indebtedness senior to the convertible notes. The level of our indebtedness, among other things, could:

- make it difficult for us to make payments on our debt;
- make it difficult for us to obtain any necessary financing in the future for working capital, capital expenditures, debt service, acquisitions or general corporate purposes;
- limit our flexibility in planning for or reacting to changes in our business;
- reduce funds available for use in our operations;
- impair our ability to incur additional debt because of financial and other restrictive covenants proposed for any such additional debt;
- make us more vulnerable in the event of a downturn in our business or an increase in interest rates; or
- place us at a possible competitive disadvantage relative to less leveraged competitors and competitors that have better access to capital resources.

If we experience a decline in product sales due to any of the factors described in this Risk Factors section or otherwise, we could have difficulty paying interest or principal amounts due on our indebtedness. If we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments, or if we fail to comply with the various requirements of our indebtedness, including the convertible notes, we would be in default, which would permit the holders of our indebtedness to accelerate the maturity of the indebtedness and could cause defaults under our other indebtedness. Any default under our indebtedness could have a material adverse effect on our business, operating results and financial condition.

We may be unable to repay or repurchase our senior subordinated convertible notes or our other indebtedness.

At maturity, the entire outstanding principal amount of our senior subordinated convertible notes will become due and payable. Holders of the convertible notes may also require us to repurchase the convertible notes on May 16 in each of 2011, 2014, 2019, 2024 and 2029. In addition, if certain fundamental changes to our company occur, the holders of the convertible notes may require us to repurchase all or any portion of their convertible notes. We may not have sufficient funds or may be unable to arrange for additional financing to pay the principal amount due at maturity or the repurchase price of the convertible notes. Any such failure would constitute an event of default under the indenture for the senior subordinated convertible notes, which could, in turn, constitute a default under the terms of any other indebtedness we may have incurred. Any default under our indebtedness could have a material adverse effect on our business, operating results and financial condition.

Conversion of the senior subordinated convertible notes or other future issuances of our stock will dilute the ownership interests of existing shareholders.

The conversion of some or all of the senior subordinated convertible notes will dilute the ownership interest of our existing shareholders. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. Further, the existence of the convertible notes may encourage short selling of our common stock by market participants because the conversion of the convertible notes could depress the price of our common stock. In addition, future sales of substantial amounts of our stock in the public market, or the perception that such sales could occur, could adversely affect the market price of our stock. Sales of our shares and the potential for such sales could cause our stock price to decline.

Our adoption of Emerging Issues Task Force (EITF) Issue No. 04-8 in 2004, requires the inclusion of shares available upon conversion of our convertible notes in calculating our diluted earnings per share (EPS), regardless of

whether the notes are then convertible. The shares included in our EPS due to EITF 04-8 did not impact our consolidated results for the periods in which the notes were outstanding as the effect of the 7.3 million shares was anti-dilutive as of the years ended 2006, 2005 and 2004. However, if in future periods the shares are dilutive, then 7.3 million shares will be added to our share count used to calculate diluted earnings per share, and this inclusion could result in significantly lower diluted EPS.

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Amortization of our intangible assets, which represent a significant portion of our total assets, will adversely affect our net income and we may never realize the full value of our intangible assets.

A substantial portion of our assets is comprised of goodwill and purchased intangible assets, recorded as a result of our merger with Thermo Cardiosystems, Inc. (TCA) in 2001. We may not receive the recorded value for our intangible assets if we sell or liquidate our business or assets. The material concentration of intangible assets increases the risk of a large charge to earnings if the revenue or recoverability of these intangible assets is impaired. For example, in the first quarter of 2004, we completed an assessment of the final results from the feasibility clinical trial for the Aria CABG graft, which was ongoing through fiscal 2003. Based on the clinical trial results, we decided not to devote additional resources to development of the Aria graft. Upon the decision to discontinue product development, we recorded an impairment charge of approximately $9 million as of January 3, 2004 to write off purchased intangible assets related to the Aria graft. In the event of another such charge to net income, the market price of our common stock could be adversely affected.

Product liability claims could damage our reputation and hurt our financial results.

Our business exposes us to an inherent risk of potential product liability claims related to the manufacturing, marketing and sale of medical devices. We maintain a limited amount of product liability insurance. Our insurance policies generally must be renewed on an annual basis. We may not be able to maintain or increase such insurance on acceptable terms or at reasonable costs, and such insurance may not provide us with adequate coverage against all potential liabilities. A successful claim brought against us in excess, or outside, of our insurance coverage could seriously harm our financial condition and results of operations. Claims against us, regardless of their merit or potential outcome, may also reduce our ability to obtain physician acceptance of our products or expand our business.

The competition for qualified personnel is particularly intense in our industry. If we are unable to retain or hire key personnel, we may not be able to sustain or grow our business.

Our ability to operate successfully and manage our potential future growth depends significantly upon retaining key research, technical, clinical, regulatory, sales, marketing, managerial and financial personnel, and attracting and retaining additional highly qualified personnel in these areas. We face intense competition for such personnel, and we may not be able to attract and retain these individuals. We compete for talent with numerous companies, as well as universities and nonprofit research organizations, throughout all our locations. The loss of key personnel for any reason or our inability to hire and retain additional qualified personnel in the future could prevent us from sustaining or growing our business. Our success will depend in large part on the continued services of our research, managerial and manufacturing personnel. We cannot assure you that we will continue to be able to attract and retain sufficient qualified personnel.

The price of our common stock may fluctuate significantly.

The price of our common stock has been, and is likely to continue to be, volatile, which means that it could decline substantially within a short period of time. For example, our closing stock price has ranged from $11.79 to $25.30 during the twelve months ended December 30, 2006. The price of our common stock could fluctuate significantly for many reasons, including the following:

- future announcements concerning us or our competitors;
- regulatory developments, enforcement actions bearing on advertising, marketing or sales, and disclosure regarding completed/ ongoing or future clinical trials;
- quarterly variations in operating results, which we have experienced in the past and expect to experience in the future;
- introduction of new products or changes in product pricing policies by us or our competitors;
- acquisition or loss of significant customers, distributors or suppliers;

reaction to estimates of business operations, product development or financial performance made public by our management;

business acquisitions or divestitures;

changes in earnings estimates by analysts;

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changes in third party reimbursement practices;

charges, amortization and other financial effects relating to our merger with TCA; and

fluctuations in the economy, world political events or general market conditions.

In addition, stock markets in general and the market for shares of health care stocks in particular, have experienced extreme price and volume fluctuations in recent years, fluctuations that frequently have been unrelated to the operating performance of the affected companies. These broad market fluctuations may adversely affect the market price of our common stock. The market price of our common stock could decline below its current price and the market price of our stock may fluctuate significantly in the future. These fluctuations may be unrelated to our performance.

Shareholders often have instituted securities class action litigation after periods of volatility in the market price of a company s securities. Several securities class action suits have been filed against us in the past, and if other such suits are filed against us in the future we may incur substantial legal fees and our management s attention and resources would be diverted from operating our business in order to respond to the litigation.

If we make acquisitions or divestitures, we could encounter difficulties that harm our business.

We may acquire companies, products or technologies that we believe to be complementary to our business. If we do so, we may have difficulty integrating the acquired personnel, operations, products or technologies and we may not realize the expected benefits of any such acquisition. In addition, acquisitions may dilute our earnings per share, disrupt our ongoing business, distract our management and employees and increase our expenses, any of which could harm our business. We may also sell businesses or assets as part of our strategy or if we receive offers from third parties. If we do so, we may sell an asset or business for less than its carrying value.

The occurrence of a catastrophic disaster or other similar events could cause damage to our facilities and equipment, which would require us to cease or curtail operations.

We are vulnerable to damage from various types of disasters, including earthquake, fire, terrorist acts, flood, power loss, communications failures and similar events. For example, in October 1989, a major earthquake that caused significant property damage and a number of fatalities struck near the area in which our Pleasanton, California facility is located. If any such disaster were to occur, we may not be able to operate our business at our facilities, in particular because our premises require FDA approval, which could result in significant delays before we can manufacture products from a replacement facility. The insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions. Therefore, any such catastrophe could seriously harm our business and results of operations.

We have a history of net losses.

We were founded in 1976 and we have had some history of incurring losses from operations. We anticipate that our expenses will increase as a result of increased pre-clinical and clinical testing, research and development and selling, general and administrative expenses. We could also incur significant additional costs in connection with our business development activities and the development and marketing of new products and indicated uses for our existing products, as well as litigation and share-based compensation costs. Such costs could prevent us from maintaining profitability in future periods.

We have experienced rapid growth and changes in our business, and our failure to manage this and any future growth could harm our business.

The number of our employees has substantially increased during the past several years. We expect to continue to increase the number of our employees, and our business may suffer if we do not manage and train our new employees effectively. Our product sales may not continue to grow at a rate sufficient to support the costs associated with an increasing number of employees. Any future periods of rapid growth may place significant strains on our managerial, financial and other resources. The rate of any future expansion, in combination with our complex technologies and products, may demand an unusually high level of managerial effectiveness in anticipating, planning, coordinating and meeting our operational needs, as well as the needs of our customers.

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Revisions to accounting standards, financial reporting and corporate governance requirements and tax laws could result in changes to our standard practices and could require a significant expenditure of time, attention and resources, especially by senior management.

We must follow accounting standards, financial reporting and corporate governance requirements and tax laws set by the governing bodies and lawmakers in the U.S. and U.K. where we do business. From time to time, these governing bodies and lawmakers implement new and revised rules and laws. These new and revised accounting standards, financial reporting and corporate governance requirements and tax laws may require changes to our financial statements, the composition of our board of directors, the composition, the responsibility and manner of operation of various board-level committees, the information filed by us with the governing bodies and enforcement of tax laws, against us. Implementing changes required by new standards, requirements or laws likely will require a significant expenditure of time, attention and resources. It is impossible to completely predict the impact, if any, on us of future changes to accounting standards, financial reporting and corporate governance requirements and tax laws.

Our accounting principles that recently have been or may be affected by changes in the accounting principles are as follows:

accounting for stock-based compensation;

accounting for income taxes; and

accounting for business combinations and related goodwill.

In particular, in the first quarter of fiscal 2006, we adopted Statement of Financial Accounting Standards (SFAS) No. 123(R) Share-Based Payment, which requires the measurement of all stock-based compensation to employees, including grants of employee stock options, using a fair-value-based method and the recording of such expense in our consolidated statements of income. The adoption of SFAS 123 (R) had a significant adverse effect on our reported financial results. It will continue to significantly adversely affect our reported financial results and may impact the way in which we conduct our business. Please refer to Notes 1 and 11 of our Notes to Consolidated Financial Statements for further information regarding the adoption of SFAS 123(R).

It is possible that the application of certain current accounting standards may change which may have a material impact to our consolidated results of operations.

We are subject to taxation in a number of jurisdictions and changes to the corporate tax rate and laws of any of these jurisdictions could increase the amount of corporate taxes we have to pay.

We pay taxes principally in the U.S., U.K., Germany and France and these tax jurisdictions have in the past and may in the future make changes to their corporate tax rates and other tax laws, which changes could increase our future tax provision.

Unanticipated changes in our tax rates could affect our future results of operations. Our future effective tax rates could be unfavourably affected by changes in tax laws or the interpretation of tax laws, by unanticipated decreases in the amount of revenue or earnings in states with low statutory tax rates, or by changes in the valuation of our deferred tax assets and liabilities. In addition, we are subject to the continual examination of our income tax returns by the Internal Revenue Service and other domestic and foreign tax authorities, primarily related to our intercompany transfer pricing. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our provision for income taxes and have reserved for potential adjustments that may result from the current examination. We believe such estimates to be reasonable; however, there can be no assurance that the final determination of any of these examinations will not have an adverse effect on our operating results and financial position.

Future levels of research and development spending, capital investment and export sales may impact our entitlement to related tax credits and benefits which have the effect of lowering our tax rate.

Any claims relating to improper handling, storage or disposal of hazardous chemicals and biomaterials could be time consuming and costly.

Manufacturing and research and development of our products requires the use of hazardous materials, including chemicals and biomaterials. We cannot eliminate the risk of accidental contamination or discharge and any resultant

injury from these materials.

We could be subject to both criminal liability and civil damages in the event of an improper or unauthorized release of, or exposure of individuals to, hazardous materials. In addition, claimants may sue us for injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Compliance with environmental laws and

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regulations is expensive, and current or future environmental regulations may impair our research, development or production efforts or harm our operating results.

Anti-takeover defenses in our governing documents could prevent an acquisition of our company or limit the price that investors might be willing to pay for our common stock.

Our governing documents could make it difficult for another company to acquire control of our company. For example:

Our Articles of Incorporation allow our Board of Directors to issue, at any time and without shareholder approval, preferred stock with such terms as it may determine. No shares of preferred stock are currently outstanding. However, the rights of holders of any of our preferred stock that may be issued in the future may be superior to the rights of holders of our common stock.

We have a rights plan, commonly known as a poison pill, which would make it difficult for someone to acquire us without the approval of our Board of Directors.

All or any one of these factors could limit the price that certain investors would be willing to pay for shares of our common stock and could delay, prevent or allow our Board of Directors to resist an acquisition of our company, even if the proposed transaction was favored by a majority of our independent shareholders.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

We are headquartered in Pleasanton, California, where we own an approximately 67,000 square-foot building that is Thoratec s corporate office building, we lease approximately 58,000 square feet of office, manufacturing and research facilities and we lease approximately 6,400 square feet of warehouse space. Our leases for these facilities expire through 2011. Additionally, we lease the following facilities:

Approximately 11,000 square feet of office and research facilities in Rancho Cordova, California, expiring in 2007.

Approximately 45,000 square feet of office, manufacturing, warehouse and research facilities in Edison, New Jersey, expiring through 2017.

Approximately 37,000 square feet of office and research facilities in Piscataway, New Jersey, expiring in 2010.

Approximately 35,000 square feet of office, manufacturing and research facilities in Roseville, Minnesota, expiring in 2008.

Approximately 39,000 square feet of office and research facilities in Burlington, Massachusetts, expiring in 2011.

Approximately 5,000 square feet of office, manufacturing and warehouse facilities and approximately 2,000 square feet of warehouse facilities in San Antonio, Texas, expiring in 2007 and 2010, respectively.

Approximately 3,000 square feet of office facilities in the United Kingdom expiring in 2008.

We also own approximately 66,000 square feet of office, manufacturing and research facilities in Edison, New Jersey.

We occupy approximately 35,000 square feet of the building we own in Pleasanton, California. The remaining building square footage is currently leased from us by a third party until March 31, 2007, and we expect to improve and occupy this portion of the building thereafter.

Each of our manufacturing areas has been inspected, approved and licensed for the manufacture of medical devices by the FDA. Additionally, the Pleasanton facility is subject to inspections, approvals and licensing by the State of California Department of Health Services (Food and Drug Section). The Edison facility is subject to inspections,

approvals and licensing by State of New Jersey Department of Health.

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The Cardiovascular segment utilizes all of the facilities in California, Massachusetts and in the United Kingdom. The ITC segment utilizes all of the facilities in New Jersey, Minnesota and Texas.

Item 3. ***Legal Proceedings***

On August 3, 2004, a putative Federal securities law class action entitled *Johnson v. Thoratec Corporation, et al.* was filed in the U.S. District Court for the Northern District of California on behalf of purchasers of our publicly traded securities between April 28, 2004 and June 29, 2004. Subsequent to the filing of the *Johnson* complaint, additional complaints were filed in the same court alleging substantially similar claims. On November 24, 2004, the Court entered an order consolidating the various putative class action complaints into a single action entitled *In re Thoratec Corp. Securities Litigation* and thereafter entered an order appointing Craig Toby as Lead Plaintiff pursuant to the Private Securities Litigation Reform Act of 1995. On or about January 18, 2005, Lead Plaintiff filed a Consolidated Complaint. The Consolidated Complaint generally alleged violations of the Securities Exchange Act of 1934 by Thoratec, its former Chief Executive Officer, its former Chief Financial Officer, and its Cardiovascular Division President based upon, among other things, alleged false statements about the Company s expected sales and the market for HeartMate XVE as a Destination Therapy treatment. The Consolidated Complaint sought to recover unspecified damages on behalf of all purchasers of the Company s publicly traded securities during the putative class period. On March 4, 2005, defendants moved to dismiss the Consolidated Complaint.

On or about September 1, 2004, a shareholder derivative action entitled *Wong v. Grossman* was filed in the California Superior Court for Alameda County based upon essentially the same facts as the Federal securities class action suit referred to above. This action named the individual members of our Board of Directors, including the former Chief Executive Officer and certain other former and current executive officers of the Company, as defendants, and alleged that the defendants breached their fiduciary duties and wasted corporate assets, and that certain of the defendants traded in Thoratec securities while in possession of material nonpublic information.

On May 11, 2006, the U.S. District Court granted our motion to dismiss. The Plaintiff filed an amended complaint, and the parties proceeded to mediation. As the result of the mediation, the parties to both the Federal securities law putative class action and the state shareholder derivative action have executed and delivered stipulations of settlement pursuant to which they release the named defendants in these actions from all pending actions in exchange for a total of $3.4 million, in the Federal securities law putative class action, and $0.3 million and the implementation of certain changes in our corporate governance policies, in the state shareholder derivative action. These stipulations to the Federal securities law putative class action and the state shareholder derivative action were approved by the applicable courts on November 17, 2006 and November 21, 2006, respectively, and both have subsequently become final and non-appealable.

We carry sufficient insurance to cover the settlement amounts contemplated by the settlement. We accrued $0.3 million of litigation expense in the second quarter of 2006 for this settlement, which amount represents the remaining portion of the Company s self-insured retention.

Item 4. ***Submission of Matters to a Vote of Security Holders***

No matters were submitted to a vote of security holders during the quarter ended December 30, 2006.

Our Executive Officers

Gerhard F. Burbach, 45, President, Chief Executive Officer and Director, joined our company as President, Chief Executive Officer and a director, in January 2006. Prior to joining us, Mr. Burbach served as the president and chief executive officer of Digirad Corporation, a leading provider of solid-stage imaging products and services to cardiologist offices, hospitals and imaging centers. He continues to serve on the Digirad board of directors. Before that he served for two years as president and chief executive officer of Bacchus Vascular Inc, a developer of interventional cardiovascular devices. Previously, he served for three years as chief executive officer of Philips Nuclear Medicine, a division of Philips Medical Systems specializing in nuclear medicine imaging systems. Until its acquisition by Philips Medical Systems, he spent four years at ADAC Laboratories, a provider of nuclear medicine imaging equipment and radiation therapy planning systems, where he became president and general manager of the nuclear medicine division. He also spent six years with the consulting firm of McKinsey & Company, primarily within the firm s healthcare practice.

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Lawrence Cohen, 57, President of ITC, joined our company in May 2001 as President of ITC. Prior to joining ITC, Mr. Cohen served as CEO of HemoSense, Inc., a developer of medical diagnostic products, from August 1998 to April 2001. From October 1989 to March 1998, Mr. Cohen held the positions of Vice President Marketing and Sales, Vice President International and Worldwide Executive Vice President at Ortho-Clinical Diagnostics, a Johnson & Johnson company. From 1980 to 1989, Mr. Cohen held executive management positions at Instrumentation Laboratory and Beckman Coulter Corporation. He is a past president of the Biomedical Marketing Association and was on the Board of Trustees of the National Blood Foundation from 1998 to 2004.

Jeffrey W. Nelson, 42, President Cardiovascular Division, joined our company as President - Cardiovascular Division in August 2002. Prior to joining us, Mr. Nelson was at Philips Medical Systems (formerly ADAC Laboratories), a provider of healthcare imaging systems and clinical solutions, where he spent eight years, most recently as general manager of the company s nuclear medicine division. He also served as a senior vice president of North American sales and general manager of ADAC Radiology Solutions and held business unit and regional sales and marketing positions at the company. Before that, he was a marketing manager for Syncor International Corporation, an associate at Cerulean Venture Fund and was in sales with Baxter Healthcare International.

David V. Smith, 47, Executive Vice President and Chief Financial Officer, joined our company on December 29, 2006 as Executive Vice President and Chief Financial Officer. Prior to joining us, Mr. Smith was Vice President, Chief Financial Officer of Chiron Corporation, a global pharmaceutical company, from April 2003 until April 2006. Mr. Smith served as Chiron s Vice President, Finance from February 2002 until April 2003 and as Chiron s Vice President and Principal Accounting Officer from February 1999 until February 2002. Mr. Smith served as the Vice President, Finance and Chief Financial Officer of Anergen, Inc. from 1997 until he joined Chiron. From 1988 to 1997, Mr. Smith held various financial management positions with Genentech, Inc., in both the United States and Europe. Mr. Smith is a member of the Board of Directors and Chair of the Audit Committee of Perlegen Sciences, Inc.

David A. Lehman, 46, Senior Vice President, General Counsel and Secretary, joined our company as Vice President and General Counsel in May 2003. Mr. Lehman was appointed as Secretary in December 2004 and became Senior Vice President in February 2007. Prior to joining us, Mr. Lehman served as Vice President and General Counsel of Brigade Corporation, a provider of business process outsourcing services, from June 2000 to May 2003. From November 1997 to June 2000, Mr. Lehman was Assistant General Counsel at Bio-Rad Laboratories, Inc., a diagnostic and life science products company. Prior to November 1997, Mr. Lehman was in the legal department of Mitsubishi International Corporation, in New York and Tokyo for more than seven years. Mr. Lehman started his career as an associate attorney at the law firm of Hall, Dickler, Kent, Friedman and Wood.

PART II

Item 5. ***Market for Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Our common stock is traded on the NASDAQ Global Select Market under the symbol THOR. The following table sets forth, for the periods indicated, the high and low closing sales price per share of our common stock, as reported by the NASDAQ Global Select Market. As of February 24, 2007, there were 52,977,715 shares of our common stock outstanding with approximately 680 holders of record, including multiple beneficial holders at depositories, banks, and brokerages listed as a single holder in the street name of each respective depository, bank, or broker.

	High	Low
Fiscal Year 2005		
First Quarter	$12.49	$ 9.39
Second Quarter	15.60	11.45
Third Quarter	17.82	15.20
Fourth Quarter	22.36	16.38
Fiscal Year 2006		
First Quarter	$25.30	$18.56
Second Quarter	18.93	12.21
Third Quarter	15.65	11.79

Fourth Quarter	17.76	14.69

We have not declared or paid any dividends on our common stock and we do not anticipate doing so in the foreseeable future.

There were no unregistered sales of our equity securities during the three months ended December 30, 2006.

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Stock Price Performance Graph

The graph below compares the cumulative total shareholder return on an investment in our Common Stock, the NASDAQ Stock Market Index (U.S. companies only) and the NASDAQ Medical Equipment Index for the five-year period ended December 29, 2006, the last trading day in our 2006 fiscal year.

The graph assumes the value of an investment in our Common Stock and each index was $100 at December 31, 2001 and the reinvestment of all dividends, if any.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Thoratec Corporation, The NASDAQ Composite Index
And The NASDAQ Medical Equipment Index

* $100 invested on 12/31/01 in stock or index-including reinvestment of dividends. Fiscal year ending December 30.

	Cumulative Return Total					
	12/01	**12/02**	**12/03**	**12/04**	**12/05**	**12/06**
Thoratec Corporation	**100.00**	**44.88**	**76.06**	**61.29**	**121.71**	**103.41**
NASDAQ Composite	**100.00**	**69.66**	**99.71**	**113.79**	**114.47**	**124.20**
NASDAQ Medical Equipment	**100.00**	**84.83**	**123.84**	**150.14**	**162.67**	**173.54**

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Issuer Purchases of Equity Securities

The following table sets forth certain information about our common stock repurchased during the three months ended December 30, 2006:

	Total number of shares purchased	Average price paid per share	Total number of shares purchased under publicly announced programs (1)	Approximate value of shares authorized to be purchased under publicly announced programs
		(in thousands, except per share data)		
October 2, 2006 through October 23, 2006	0.4	$ 15.38		$
October 28, 2006 through November 20, 2006	1.0	15.00		
November 27, 2006 through December 26, 2006	0.7	15.58		
Total	2.1(2)	$ 15.27		$

(1) Our share repurchase programs, which authorized us to repurchase up to a total of $130 million of the Company s common shares, were announced on February 11, 2004 as a $25 million program, on May 12, 2004 as a $60 million program, on July 29, 2004 as a $25 million program and on February 2, 2006 as a

$20 million program. These programs authorize us to acquire shares in the open market or in privately negotiated transactions and do not have an expiration date. No shares were repurchased under these programs during the three months ended December 30, 2006.

(2) Shares purchased that were not part of our publicly announced repurchase programs represent the surrender value of shares of restricted stock used to pay income taxes due upon vesting, and do not reduce the dollar value that may yet be purchased under our publicly announced repurchase programs.

Item 6. ***Selected Consolidated Financial Data***

The selected consolidated financial data presented below for the five fiscal years ended December 31, 2006 are derived from our audited financial statements. The data set forth below should be read in conjunction with Management s Discussion and Analysis of Financial Condition and Results of Operations below and our audited consolidated financial statements and notes thereto appearing elsewhere in this Annual Report on Form 10-K.

Our fiscal year ends on the Saturday closest to December 31. Accordingly, our fiscal year will periodically contain more or less than 365 days. For example, fiscal 2002 ended December 28, 2002, fiscal 2003 ended January 3, 2004,

fiscal 2004 ended January 1, 2005, fiscal 2005 ended December 31, 2005 and fiscal 2006 ended December 30, 2006. Fiscal 2007 will end on December 29, 2007.

	Fiscal Year				
	2006(1)	**2005**	**2004**	**2003**	**2002**
	(In thousands, except per share data)				
Statement of Operations:					
Product sales	$214,133	$201,712	$172,341	$149,916	$130,844
Gross profit	125,485	123,340	100,222	88,748	75,720
Amortization of goodwill and purchased intangible assets	12,055	11,204	11,724	12,333	12,384
In-process research and development	1,120			220	
Impairment of intangible asset				8,987	
Litigation, merger, restructuring and other costs	447	95	733	2,132	1,409
Net income (loss)	$ 3,973	$ 13,198	$ 3,564	$ (2,182)	$ 511
Basic net income (loss) per share	$ 0.08	$ 0.27	$ 0.07	$ (0.04)	$ 0.01
Diluted net income (loss) per share	$ 0.07	$ 0.26	$ 0.07	$ (0.04)	$ 0.01
Balance Sheet Data:					
Cash and cash equivalents and short term available-for-sale investments	$194,478	$210,936	$145,859	$ 62,020	$ 45,483
Working capital	265,690	269,293	206,250	116,430	107,972
Total assets	591,135	573,918	518,034	471,335	463,188
Subordinated convertible debentures	143,750	143,750	143,750		
Long-term deferred tax liability (2)	46,421	48,765	62,016	65,845	74,081
Total shareholders equity	$365,073	$348,147	$292,108	$386,236	$374,340

(1) On January 1, 2006, we adopted SFAS No. 123 (R) and included share-based compensation in our results of operation.

(2) The comparative years have been restated to include long-term deferred tax liability only.

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Item 7. ***Management s Discussion and Analysis of Financial Condition and Results of Operations***

This Annual Report on Form 10-K, including the documents incorporated by reference in this Annual Report, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements can be identified by the words expects, projects, hopes, believes, intends, should, estimate, will, would, may, anticipates, pl similar words. Actual results, events or performance could differ materially from these forward-looking statements based on a variety of factors, many of which are beyond our control. Therefore, readers are cautioned not to put undue reliance on these statements. Factors that could cause actual results or conditions to differ from those anticipated by these and other forward-looking statements include those more fully described in the Risk Factors section of this Annual Report and in other documents we file with the SEC. These forward-looking statements speak only as of the date hereof. We undertake no obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect events or circumstances after the date hereof, or to reflect the occurrence of unanticipated events.

The following presentation of management s discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements included in this Form 10-K.

Review of Historic Equity-Based Compensation Practices

This Annual Report on Form 10-K for our fiscal year ended December 30, 2006 has been filed late because of a detailed review of our equity-based compensation practices, including a review of the underlying documentation and procedures, and related accounting for, such practices. The review was initiated as part of a series of standard testing procedures necessary in order to complete the preparation of our consolidated financial statements contained herein. This review was completed on March 29, 2007.

Although this review identified certain documentation and procedural errors that resulted in unrecorded, non-cash equity-based compensation charges associated with certain of our past stock option grants, we have concluded that these accounting errors are immaterial to our financial statements in each of the periods to which the charges would have related (fiscal years 2001 through 2005).

Overview

We are a leading manufacturer of circulatory support products for use by patients with HF. Our VAD s are used primarily by HF patients to perform some or all of the pumping function of the heart. We currently offer the widest range of products to serve this market. We believe that our long-standing reputation for quality and innovation, and our excellent relationships with leading cardiovascular surgeons and HF cardiologists worldwide, position us to capture growth opportunities in the expanding HF market. Through our wholly-owned subsidiary ITC, we design, develop, manufacture and market point-of-care diagnostic test systems and incision products that provide fast, accurate blood test results to improve patient management, reduce healthcare costs and improve patient outcomes. On October 3, 2006, ITC acquired Avox, a leading manufacturer of point-of-care instruments and disposables to perform CO-oximetry system testing.

Our Business Model

Our business is comprised of two segments: Cardiovascular and ITC.

The product line of our Cardiovascular segment is:

Circulatory Support Products. Our circulatory support products include VADs for the short, intermediate and long-term treatment of advanced HF. In addition, we have developed small diameter grafts using our proprietary materials to address the vascular access market for hemodialysis.

The product lines of our ITC segment are:

Point-of-Care Diagnostics. Our point-of-care products include diagnostic test systems that monitor blood coagulation for a patient while being administered certain anticoagulants, blood gas/electrolyte, oxygenation and chemistry status, including total hemoglobin.

Incision. Our incision products include devices used to obtain a patient s blood sample for diagnostic testing and screening for platelet function.

Acquisitions

On October 3, 2006, ITC, our wholly-owned subsidiary, completed the acquisition of all of the outstanding common shares of privately held Avox based in San Antonio, Texas. Avox is now a subsidiary of ITC and manufactures two devices that utilize patented light-scattering technology to make direct measurements in whole blood. The AVOXimeter 1000E is specifically designed for the cardiac catheterization lab, and is the leading stand-alone point-of-care CO-oximetry system in U.S. hospitals today. The portable AVOXimeter 4000 provides an assessment of a patient s oxygenation at the bedside. The AVOXimeter 4000 is used in routine testing in combination with a blood gas analyzer to provide a more comprehensive and complete assessment of a patient s oxygenation status in the ICU, operating room and other critical care situations. It is also used in the NICU to confirm nitric oxide treatment side effects in newborns and in the emergency department to diagnose smoke inhalation.

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The final purchase price allocation for our acquisition of Avox is subject to the finalization of the valuation of certain assets and liabilities, plans for consolidation of facilities and relocation of employees and other integration activities. The total purchase price of our acquisition of Avox has been allocated to the assets and liabilities, based upon estimated fair value as determined primarily by an independent valuation firm. We paid $9.3 million in cash plus $0.2 million of transaction costs. As part of the acquisition, we expensed $1.2 million, primarily comprising of in-process research and development costs.

Critical Accounting Policies and Estimates

We have identified the policies and estimates below as critical to our business operations and the understanding of our results of operations. The impact of, and any associated risks related to, these policies and estimates on our business operations are discussed below. For a more detailed discussion on the application of these and other accounting policies and estimates, see the notes to the consolidated financial statements included in this Annual Report on Form 10-K. Preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets, liabilities, revenue and expenses and the disclosure of contingent assets and liabilities. There can be no assurance that actual results will not differ from those estimates and assumptions.

Revenue Recognition

We recognize revenue from product sales for our Cardiovascular and ITC business segments when evidence of an arrangement exists, title has passed (generally upon shipment) or services have been rendered, the selling price is fixed or determinable and collectibility is reasonably assured. Sales to distributors are recorded when title transfers upon shipment. One of our distributors has certain limited product return rights. Other distributors have certain rights of return upon termination of their distribution agreement. A reserve for sales returns is recorded for these customers applying reasonable estimates of product returns based upon historical experience. No other direct sales customers or distributors have return rights or price protection.

We recognize sales of certain Cardiovascular segment products to first-time customers when we have determined that the customer has the ability to use the products. These sales frequently include the sale of products and training services under multiple element arrangements. Training is not considered essential to the functionality of the products. The amount of revenue under these arrangements allocated to training is based upon fair market value of the training, which is typically performed on behalf of the Company by third party providers. The amount of product sales allocated to the Cardiovascular segment products is made on a fair value basis. Under this basis, the total value of the arrangement is allocated to the training and the Cardiovascular segment products based on the relative fair market value of the training and products.

In determining when to recognize revenue, management makes decisions on such matters as the fair values of the product and training elements when sold together, customer credit worthiness and warranty reserves. If any of these decisions proves incorrect, the carrying value of these assets and liabilities on our consolidated balance sheets could be significantly different and it could have a material adverse effect on our results of operations for any fiscal period.

Reserves

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make payments owed to us for product sales and training services. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

The majority of our products are covered by up to a two-year limited manufacturer s warranty from the date of shipment or installation. Estimated contractual warranty obligations are recorded when related sales are recognized and any additional amounts are recorded when such costs are probable and can be reasonably estimated, at which time they are included in Cost of product sales in our consolidated statements of operations.

We believe we have provided adequate reserves for anticipated tax audit adjustments by United States, federal, state and local, as well as foreign, tax authorities based on our estimate of whether, and the extent to which, additional taxes, interest and penalties may be due. If events occur which indicate payment of these amounts is unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the accrued liabilities are no longer warranted. If our estimate of tax liabilities proves to be less than the ultimate assessment, a further charge to expense would result.

Management must make judgments to determine the amount of reserves to accrue. If any of these management estimates proves incorrect, our financial statements could be materially and adversely affected.

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Income Taxes

We make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, benefits, and deductions, such as tax benefits from our non-U.S. operations and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of revenue and expense for tax and financial statement purposes.

Determining our deferred tax liabilities involves uncertainties in the assessment of our domestic and foreign operations. We recognize liabilities for anticipated tax liabilities in the U.S. and other tax jurisdictions based on our estimate of whether, and the extent to which, additional tax payments are probable. If we determine that payment of these amounts is not likely, we will reverse the liability and recognize a tax benefit during the period in which we determine that the liability is no longer necessary.

We assess the likelihood that we will be able to recover our deferred tax assets. If recovery is not likely, we must increase our provision for taxes by recording a valuation allowance against deferred tax assets that we estimate will ultimately not be recoverable. We believe that our deferred tax assets recorded on our consolidated balance sheets will ultimately be recovered. However, should there occur a change in our ability to recover our deferred tax assets, our tax provision would increase in the period in which we determine that the recovery is not likely.

Evaluation of Purchased Intangibles and Goodwill for Impairment

In accordance with SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, we periodically evaluate the carrying value of long-lived assets to be held and used, including intangible assets subject to amortization, when events or circumstances warrant such a review. The carrying value of a long-lived asset to be held and used is considered impaired when the anticipated separately identifiable undiscounted cash flows from such an asset are less than the carrying value of the asset. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset. Fair value is determined primarily using the anticipated cash flows discounted at a rate commensurate with the risk involved. Management must make estimates of these future cash flows and the approximate discount rate, and if any of these estimates proves incorrect, the carrying value of these assets on our consolidated balance sheets could become significantly impaired.

In accordance with SFAS No. 142, Goodwill and Other Intangible Assets, we no longer amortize goodwill. We complete an impairment test of goodwill and other intangible assets subject to amortization as required by SFAS No. 142. Upon completion of our impairment tests as of the end of fiscal year 2006, we determined that neither goodwill nor intangible assets were impaired.

Valuation of Share-Based Awards

We account for share-based compensation in accordance with the fair value recognition provisions of SFAS No. 123(R). Under SFAS No. 123(R), share-based compensation cost is measured at the grant date based on the value of the award and is recognized as expense over the vesting period. Determining the fair value of option awards at the grant date requires judgment, including estimating the expected term of stock options, the expected volatility of our stock, expected forfeitures and expected dividends. The computation of the expected volatility assumption used in the Black-Scholes option pricing model for option grants is based on historical volatility. When establishing the expected life assumption, we review annual historical employee exercise behavior of option grants with similar vesting periods. In addition, judgment is also required in estimating the amount of share-based awards that are expected to be forfeited. If actual results differ significantly from these estimates, share-based compensation expense and our results of operations could be materially affected.

Make-Whole Premium

Under the terms of our senior subordinated convertible notes issued in 2004, if we experience a change in control or a termination of trading of our common stock, each note holder may require us to purchase all or a portion of their notes at a price equal to the issue price plus any original issue discount. In addition, if the consideration for the change in control is all cash, the company will pay a make-whole premium to the note holders. This premium is considered an embedded derivative under SFAS No. 133 and has been bifurcated from the convertible notes and recorded at its estimated fair value, $0.2 million, $0.2 million and none at December 30, 2006, December 31, 2005, and January 1, 2005, respectively.

There are significant variables and assumptions used in valuing the make-whole provision of our senior subordinated convertible notes including, but not limited to, the Company s stock price, volatility of the Company s stock, the probability of our being acquired and the probability of the type of consideration used by a potential acquirer. If any of these variables change significantly or if any of management s assumptions proves incorrect, our financial statements could be materially and adversely affected.

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Results of Operations

The following table sets forth selected consolidated statements of operations data for the years indicated as a percentage of total product sales:

	For the Fiscal Years Ended		
	2006	**2005**	**2004**
Product sales	100%	100%	100%
Cost of product sales	41	39	42
Gross profit	59	61	58
Operating expenses:			
Selling, general and administrative	35	30	31
Research and development	19	16	17
Amortization of purchased intangible assets	6	6	7
In-process research and development	1		
Total operating expenses	61	52	55
Income (loss) from operations	(2)	9	3
Other income and (expense):			
Interest expense	(2)	(2)	(1)
Interest income and other	4	2	1
Income before taxes	0	9	3
Income tax expense (benefit)	(1)	2	1
Net income	1%	7%	2%

For the Fiscal Years Ended 2006 and 2005

Product Sales

Product sales in 2006 increased 6% to $214.1 million compared to $201.7 million in 2005. The Cardiovascular segment increased sales by $8.5 million and the ITC segment increased sales by $3.9 million. Product sales increases are due to an increase in volume unless otherwise noted. The primary components of the total $12.4 million increase in product sales were the following:

VAD product sales increased by $8.8 million. The increase came from higher sales of our HeartMate II product line, partially offset by a reduction in sales of our VAD product lines.

Other ancillary revenue (drivers, cannulae, service, rentals and spares) increased $3.2 million, including higher driver rental revenue and accessory sales associated with the HeartMate product lines.

Graft product sales decreased by $3.3 million, principally due to the recognition in 2005 of a payment related to the modification of our distribution agreement with C.R. Bard Corporation of $1.9 million.

Point-of-care diagnostic product sales increased $3.9 million, due primarily to increases in sales of our Protime, and Hemochron products, as well as sales of Avox products in the fourth quarter of 2006. These increases were partially offset by a decrease in sales of our IRMA product year over year.

Incision product sales decreased $0.2 million in 2006 as compared to 2005.

Sales originating outside of the United States and U.S. export sales accounted for approximately 24% and 23% of our total product sales in 2006 and 2005, respectively.

Gross Profit

Gross profit as a percentage of product sales for 2006 and 2005 was 59% and 61%, respectively. The 2% decrease in gross profit was due to the proportionate sales of ITC versus Cardiovascular products in conjunction with the following:

Costs related to share-based compensation of $1.0 million were recorded in 2006 and not in 2005.

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The Cardiovascular segment gross profit decreased by 1% primarily due to recognition in 2005 of the payment received from the C.R. Bard Corporation for the modification of our distribution agreement as well as an unfavorable product mix in 2006. These decreases were partially offset by increased average selling prices.

The ITC segment gross profit decreased by 5%, due to unfavorable product mix and manufacturing variances as well as increased freight costs.

Selling, General and Administrative

Selling, general and administrative expenses in 2006 were $73.7 million, or 35% of product sales, as compared to $61.8 million, or 30% of product sales, in 2005. The $11.9 million increase in spending was primarily attributable to the following:

Costs related to share-based compensation of $5.9 million were recorded in 2006 and not in 2005.

Cardiovascular costs increased by $3.7 million in 2006 as compared to 2005, primarily due to an increase in personnel expenses in 2006 related to the expansion of our sales force and marketing organization, marketing initiatives and management consulting services.

ITC costs increased by $2.1 million in 2006 as compared to 2005, primarily due to higher personnel costs, rent, Group Purchasing Organization fees and consulting costs related to the implementation of a new enterprise resource planning software (ERP) system.

Corporate costs increased by $0.2 million in 2006 as compared to 2005 because of higher consulting and personnel costs, partially offset by lower CEO transition costs.

Research and Development

Research and development expenses in 2006 were $39.8 million, or 19% of product sales, compared to $32.3 million, or 16% of product sales, in 2005. Of the $7.5 million increase, the implementation of SFAS No. 123(R) increased costs by $2.3 million and our Cardiovascular and ITC segments incurred $4.7 million and $0.6 million in additional expenses, respectively, year over year. The increased expense in the Cardiovascular segment was partially due to a one-time charge of $1.6 million related to the redirection of our HeartMate III program in December 2006. Research and development costs are largely project driven, and the level of spending depends on the level of project activity planned and subsequently approved and conducted. The primary component of our research and development costs is employee salaries and benefits. Research and development costs also include regulatory and clinical costs associated with our compliance with FDA regulations and clinical trials such as the Phase II HeartMate II pivotal trial.

Amortization of Purchased Intangible Assets

Amortization of purchased intangible assets in 2006 was $12.1 million as compared to $11.2 million in 2005. The $0.9 million increase is attributable to higher amortization of intangible costs from the acquisition of Avox and a change in business conditions that caused us to modify the remaining economic useful lives of our identifiable intangible assets under SFAS No. 144 in January 2006.

Purchased In-Process Research and Development

Our in-process research and development (IPR&D) expenses in 2006 totaled $1.1 million and none in 2005. IPR&D costs from the acquisition of Avox in October 2006, were written off because they related to technological projects that were in development, had not reached technological feasibility, had no alternative future use and for which successful development was uncertain.

Litigation Costs

Litigation charges in 2006 were $0.4 million compared to $0.1 million in 2005. The expenses in both years is primarily comprised of costs associated with a Federal securities law putative class action, and a related shareholder derivative action.

Interest Expense

Interest expense was $4.3 million in 2006 compared to $4.1 million in 2005. The components include $3.6 million and $3.5 million in interest payments and $0.6 million, and $0.6 million in amortization of the debt issuance costs, related to our senior subordinated convertible notes in 2006 and 2005, respectively.

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Interest Income and Other

Interest income and other in 2006 was $8.5 million compared to $4.2 million in 2005. This increase was primarily due to higher interest income earned on our investment portfolio based on increased average cash balances and higher interest rates in 2006 compared with 2005. Additionally, we received rental income of $0.5 million from the sub-lease of a portion of our headquarters building in the first quarter of 2006.

Income Taxes

Our effective tax rate was (58)% in 2006 compared to 26.9% in 2005. The decrease in our annual effective tax rate for 2006 was primarily attributable to a decrease in income before taxes, an updated estimate of foreign earnings considered to be permanently reinvested outside the U.S. and increases in tax-advantaged interest income and research and development credits. These decreases were partially offset by an increase in non-deductible share-based compensation expense related to our adoption of SFAS No. 123(R).

We believe we have provided adequate amounts for anticipated tax audit adjustments in the U.S., state and other foreign tax jurisdictions based on our estimate of whether, and the extent to which, additional taxes and interest may be due. If events occur which indicate payment of these amounts are unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. If our estimate of tax liabilities proves to be less than the ultimate assessment, a further charge to expense would result.

For the Fiscal Years Ended 2005 and 2004

Product Sales

Product sales in 2005 were $201.7 million compared to $172.3 million in 2004. The Cardiovascular segment increased sales by $22.2 million and the ITC segment increased sales by $7.2 million. Product sales increases are due to an increase in volume unless otherwise noted. The primary components of the total $29.4 million increase in product sales were the following:

VAD product sales increased $16.7 million. The increase resulted from higher sales of our HeartMate II and IVAD products, partially offset by a reduction in sales of our PVAD and HeartMate XVE product lines.

Other ancillary revenue (drivers, cannulae, service, rentals and spares) increased $2.6 million, including increases in driver rental revenue and cannulae sales associated with the IVAD product line.

Graft product sales increased by $2.9 million, principally due to the recognition in 2005 of a payment related to the modification of our distribution agreement with C.R. Bard Corporation as well as a higher average selling price.

Point-of-care diagnostic product sales increased $8.5 million, due primarily to increases in our sales of Protime, IRMA, and Hemochron products partially offset by a modest decrease in sales of our Hgb Pro products year over year.

Incision product sales were down $1.3 million year over year.

Sales originating outside of the United States and U.S. export sales accounted for approximately 23% of our total product sales in 2005 and 2004.

Gross Profit

Gross profit as a percentage of product sales for 2005 and 2004 was 61% and 58%, respectively. The 3% increase in gross profit was due to the proportionate sales of ITC versus Cardiovascular products in conjunction with the following:

The Cardiovascular segment increased gross profit by 4% due to increased sales of higher margin VAD products, coupled with a decrease in manufacturing costs.

The ITC segment increased gross profit by 1%, due to higher margin sales in the point-of-care product line and reduced manufacturing costs.

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Selling, General and Administrative

Selling, general and administrative expenses in 2005 were $61.8 million, or 30% of product sales, compared to $54.1 million, or 31% of product sales, in 2004. The $7.7 million increase in these expenses was primarily attributable to the following:

Increased personnel costs of $3.7 million associated with CEO transition, CFO recruitment, and other bonus and retention programs not specifically identified to any particular business segment.

Increased personnel costs associated with higher product sales and overall headcount increases in the Cardiovascular segment of $2.5 million, partially offset by a $0.3 million decrease in personnel costs for the ITC segment.

Higher spending on marketing and related activities primarily associated with Destination Therapy, and increased costs associated with training efforts in the Cardiovascular segment totaling $1.2 million, in addition to a $0.8 million increase in spending by the ITC segment related to increased Group Purchasing Organization and consulting fees, partially offset by a decrease of $0.2 million related to travel and supplies.

Research and Development

Research and development expenses in 2005 were $32.3 million, or 16% of product sales, compared to $28.7 million, or 17% of product sales, in 2004. Of the $3.6 million increase, our Cardiovascular and ITC segments incurred $3.3 million and $0.3 million, in additional expenses, respectively, year over year. Research and development costs are largely project driven, and the level of spending depends on the level of project activity planned and subsequently approved and conducted. The primary component of our research and development costs is employee salaries and benefits. Research and development costs also include regulatory and clinical costs associated with our compliance with FDA regulations and clinical trials such as the Phase II HeartMate II pivotal trial.

Amortization of Purchased Intangible Assets

Amortization of purchased intangible assets in 2005 was $11.2 million compared to $11.7 million in 2004. The $0.5 million decrease resulted from changes in certain asset lives in January 2005 as a result of our 2004 SFAS No. 144 impairment test.

Litigation Costs

Litigation charges in 2005 were $0.1 million compared to $0.7 million in 2004. The expense in both years is primarily comprised of costs associated with a Federal securities law putative class action, and a related shareholder derivative action.

Interest Expense

Interest expense in 2005 was $4.1 million compared to $2.5 million in 2004. The expense includes $3.5 million and $2.1 million in interest payments and $0.6 million, and $0.4 million in amortization of the debt issuance costs, related to our senior subordinated convertible notes for 2005 and 2004, respectively.

Interest Income and Other

Interest income and other in 2005 was $4.2 million compared to $2.2 million in 2004. This increase was primarily due to higher interest income earned on our portfolio based on increased average cash balances and higher interest rates in 2005 compared with 2004.

Income Taxes

Our effective tax rate was 26.9% in 2005 compared to 24.0% in 2004. The increase in our effective tax rate on a comparative basis was due primarily to a combination of a significant increase in current profitability and increased nondeductible executive compensation, offset in part by increased interest income from tax favorable investments and increased research and development credits.

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Liquidity and Capital Resources

We had working capital of $265.7 million at December 30, 2006 compared with $269.3 million at December 31, 2005. Cash and cash equivalents were $67.5 million at December 30, 2006 compared to $35.1 million at December 31, 2005. The increase in cash and cash equivalents was primarily due to net sales of investments, cash generated from operations and proceeds from stock option exercises offset in part by our net purchases of property, plant and equipment, the acquisition of Avox and our investment in a $5.0 million of convertible note issued by Levitronix.

Cash provided by operating activities was $16.8 million. This amount included net income of $4.0 million increased by positive non-cash adjustments to net income of $28.2 million primarily comprised of $20.3 million for depreciation and amortization, $9.6 million related to share-based compensation expenses principally related to our adoption of SFAS No. 123(R) and $2.8 million of tax benefit related to the exercise of stock options, partially offset by a decrease of $1.8 million related to excess tax benefits from share-based compensation and a $6.4 million decrease in our net deferred tax liability. Changes in assets and liabilities used additional cash of $15.4 million largely due to the increase in receivables and inventory.

Investing activities provided $14.0 million in cash, with $52.4 million from the sale of investment securities, partially offset by $24.5 million to acquire property, plant and equipment net, of $1.9 million in transfers of product inventory of drivers and demonstration equipment into fixed assets, $8.8 million used to acquire Avox, net of cash acquired and $5.0 million used to acquire the convertible debt of Levitronix. The purchases of property, plant and equipment included the January 2006 purchase of an office building in Pleasanton, California that used cash of $12.3 million for the land and building. Additionally, $3.2 million of cash was used for improvements to this office building, and $1.3 million was used for furniture and fixtures, and $0.5 million was used for management information systems. The ITC segment used $4.3 million of cash primarily for facility expansion costs of $1.9 million and the ERP system implementation of $0.8 million.

Cash provided by financing activities was $0.6 million, primarily includes $15.1 million from proceeds related to stock option exercises and purchases under our Employee Stock Purchase Plan partially offset by $15.0 million paid to repurchase one million shares of stock under our stock repurchase programs in the first quarter of 2006 and $1.2 million of restricted stock purchased to pay employees withholding taxes.

In March 2005, we purchased a new ERP system at ITC. The cost of the purchased software licenses, hardware, implementation costs and consulting for the ERP system through December 30, 2006 was $1.9 million, with $1.8 million of this amount capitalized. The ERP system was successfully implemented in July 2006, with additional software upgrades that were completed by the end of December 2006.

We believe that cash and cash equivalents, short-term available-for-sale investments on hand and expected cash flows from operations, will be sufficient to fund our operations, capital requirements and stock repurchase programs for at least the next twelve months.

The impact of inflation on our financial position and the results of operations was not significant during any of the periods presented.

Off Balance Sheet Arrangements

Letter of Credit We maintain an Irrevocable Standby Letter of Credit as part of our workers compensation insurance program. The Letter of Credit is not collateralized. Unless terminated by one of the parties, the Letter of Credit automatically renews on June 30 of each year. At December 30, 2006, our Letter of Credit balance was $460,000.

Contractual Obligations

As of December 30, 2006, we had the following contractual obligations:

	Total	2007	2008	2009	2010	2011	Thereafter
			(in millions)				
Long-Term Debt Obligations (a)	$ 262.4	$ 3.4	$ 3.4	$ 3.4	$ 3.4	$ 3.4	$ 245.4
	15.6	2.8	2.6	2.3	2.3	2.2	3.4

Operating Lease Obligations (b)							
Purchase Obligations (c)	15.4	2.2	2.2	1.8	1.8	1.8	5.6
Total	$ 293.4	$ 8.4	$ 8.2	$ 7.5	$ 7.5	$ 7.4	$ 254.4

(a) Includes interest of $14.9 million and original issue discount of $103.7 million. See note 10 to our consolidated financial statements included in this Annual Report on Form 10-K related to our long-term debt.

(b) Our operating lease obligations of $15.6 million were comprised of our various leased facilities and office equipment.

(c) Our purchase obligations of $15.4 million were comprised of supply agreements in effect at December 30, 2006.

(d) We have not declared or paid any dividends on our common stock and we do not anticipate doing so in the foreseeable future.

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Accounting Pronouncements

In December 2004, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 123(R) Share-Based Payment , an amendment of SFAS No. 123 and SFAS No. 95. SFAS No. 123R requires that share-based compensation be recognized as a cost in the financial statements and these cost be measured based on the fair value of the share-based compensation. We adopted SFAS No. 123(R) on January 1, 2006.

In May 2005, the FASB issued SFAS No. 154, Accounting Changes and Error Corrections, effective with fiscal years beginning after December 15, 2005 and only affecting the consolidated financial statements in periods in which a change in accounting principle or error correction is made. This statement replaces APB Opinion No. 20, Accounting Changes, and Statement of Financial Accounting Standard No. 3, Reporting Accounting Changes in Interim Financial Statements, and changes the requirements for the accounting for and reporting of a change in accounting principle or correction of an error to retrospective application. Retrospective application means the application of a different accounting principle to prior accounting periods as if that principle had always been used or as the adjustment of previously issued financial statements to reflect a change in the reporting entity. We adopted this SFAS in 2005.

In November 2005, the FASB issued Staff Position (FSP) 115-1/124-1, The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments. This FSP provides additional guidance on when an investment in a debt or equity security should be considered impaired and when that impairment is deemed other-than-temporary, even if a decision to sell has not been made. The FSP also requires certain disclosures about unrealized losses that have not been recognized as other-than-temporary impairments. Companies are required to apply the guidance in this FSP to reporting periods beginning after December 15, 2005. We adopted this FSP in 2005.

In June 2006, the FASB issued Interpretation No. (FIN) 48, Accounting for Uncertainty in Income Taxes, an interpretation of SFAS No. 109. FIN 48 clarifies the accounting for uncertainty in income taxes. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 requires that we recognize in the financial statements the impact of the tax position if that position will more likely than not be sustained on audit, based on the technical merits of the position. FIN 48 also provides guidance related to derecognition, classification, interest and penalties, accounting in interim periods and disclosure. We are currently evaluating the accounting and disclosure requirements of FIN 48 in order to determine the impact that this guidance will have on our results of operations or financial condition when we adopt FIN 48 at the beginning of our fiscal year 2007.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. SFAS No. 157 does not require any new fair value measurements, but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. We are currently evaluating the accounting and disclosure requirements that this guidance will have on our results of operations or financial condition when we adopt SFAS No. 157 at the beginning of our fiscal year 2008.

In September 2006, the SEC issued Staff Accounting Bulletin (SAB) No. 108 on Quantifying Financial Statement Errors. Due to diversity in practice among registrants, SAB No. 108 expresses the views of the SEC staff in evaluating misstatements in financial statements to determine whether financial statement restatements are necessary. SAB No. 108 is effective for fiscal years ending after November 15, 2006. We have determined that SAB No. 108 will not have a material impact on the reported results of our consolidated financial position or results of operations.

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Item 7A. ***Quantitative and Qualitative Disclosures About Market Risk***

Interest Rate Risk

Our investment portfolio is made up of marketable investments in money market funds, auction rate securities, U.S. Treasury securities and debt instruments of government agencies, local municipalities, and high quality corporate issuers. All investments are carried at market value and are treated as available-for-sale. All investments mature within two years or less from the date of purchase, except some of the investments in U.S. Treasuries that are held as restricted investments as collateral for future interest payments related to our senior subordinated convertible debt, which mature within three years from the original date of purchase. Our holdings of the securities of any one issuer, except government agencies, do not exceed 10% of the portfolio. If interest rates rise, the market value of our investments may decline, which could result in a loss if we are forced to sell an investment before its scheduled maturity. If interest rates were to rise or fall from current levels by 25 basis points, the change in our net unrealized loss on investments would be nominal. We do not utilize derivative financial instruments to manage interest rate risks.

Our senior subordinated convertible notes do not bear interest rate risk as the notes were issued at a fixed rate of interest.

Foreign Currency Rate Fluctuations

We conduct business in foreign countries. Our international operations consist primarily of sales and service personnel for our ventricular assist products who report to our U.S. sales and marketing group and are internally reported as part of that group. All assets and liabilities of our non-U.S. operations are translated into U.S. dollars at the period-end exchange rates and the resulting translation adjustments are included in comprehensive income. The period-end translation of the non-functional currency assets and liabilities (primarily assets and liabilities on our United Kingdom (UK) subsidiary s consolidated balance sheet that are not denominated in UK pounds) at the period-end exchange rates result in foreign currency gains and losses, which are included in our consolidated statements of operations in Interest income and other.

We use forward foreign currency contracts to hedge the gains and losses generated by the re-measurement of non-functional currency assets and liabilities (primarily assets and liabilities on our UK subsidiary s consolidated balance sheet that are not denominated in UK pounds). Our contracts typically have maturities of three months or less.

Our financial instrument contracts qualify as derivatives under SFAS No. 133 Accounting for Derivative Instrument and Hedging Activities and we value these contracts at the estimated fair value at December 30, 2006. The fair value of the forward currency contracts are included in Interest income and other, and typically offset the foreign currency exchange gains and losses in the statement of operations. The impact of these foreign currency contracts was a loss of $0.2 million and a gain of $0.5 million for the years ended December 30, 2006 and December 31, 2005, respectively. The impact of the foreign currency translation adjustments from conducting our foreign operations was a gain of $0.3 million and a loss of $0.4 million for the years ended December 30, 2006 and December 31, 2005, respectively.

At December 30, 2006, we had forward contracts to sell euros with a notional value of $3.9 million and purchase UK pounds with a notional value of $1.7 million and at December 31, 2005, we had forward contracts to purchase euros with a notional value of $4.4 million. As of December 30, 2006, our forward contracts had an average exchange rate of one U.S. dollar to 0.7551 euros and one U.S. dollar to 0.5095 UK pounds. It is highly uncertain how currency exchange rates will fluctuate in the future. The potential fair value loss for a hypothetical 10% adverse change in foreign currency exchange rates at December 30, 2006, would be approximately $0.9 million.

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Item 8. ***Financial Statements and Supplementary Data***
THORATEC CORPORATION AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Thoratec Corporation:

We have audited the accompanying consolidated balance sheets of Thoratec Corporation and subsidiaries (the Company) as of December 30, 2006 and December 31, 2005, and the related consolidated statements of operations, comprehensive income (loss), stockholders equity, and cash flows for the years ended December 30, 2006, December 31, 2005, and January 1, 2005. Our audits also included the financial statement schedule listed in at Item 15(a) 2. These financial statements and financial statement schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Thoratec Corporation and subsidiaries as of December 30, 2006 and December 31, 2005, and the results of their operations and their cash flows for the years ended December 30, 2006, December 31, 2005, and January 1, 2005, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, in 2006 the Company changed its method of accounting for stock-based compensation upon adoption of Statement of Accounting Standards No. 123(R), *Share-Based-Payments*.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company s internal control over financial reporting as of December 30, 2006, based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 30, 2007 expressed an unqualified opinion on management s assessment of the effectiveness of the Company s internal control over financial reporting and an unqualified opinion on the effectiveness of the Company s internal control over financial reporting.

DELOITTE & TOUCHE LLP
San Francisco, CA
March 30, 2007

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Thoratec Corporation:

We have audited management s assessment, included in the accompanying Management s Report on Internal Control Over Financial Reporting, that Thoratec Corporation and subsidiaries (the Company) maintained effective internal control over financial reporting as of December 30, 2006, based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management s assessment and an opinion on the effectiveness of the Company s internal control over financial reporting based on our audit.

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

A company s internal control over financial reporting is a process designed by, or under the supervision of, the company s principal executive and principal financial officers, or persons performing similar functions, and effected by the company s board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company s assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management s assessment that the Company maintained effective internal control over financial reporting as of December 30, 2006, is fairly stated, in all material respects, based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 30, 2006, based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended December 30, 2006 of the Company and our report dated March 30, 2007, which report expresses unqualified opinions and includes an explanatory paragraph regarding the adoption of Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment.*

DELOITTE & TOUCHE LLP

San Francisco, CA

March 30, 2007

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THORATEC CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	As of Fiscal Years Ended	
	2006	2005
	(in thousands)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 67,453	$ 35,109
Short-term available-for-sale investments	127,025	175,827
Restricted short-term investments	1,681	3,330
Receivables, net of allowances of $491 in 2006 and $634 in 2005	43,718	35,904
Inventories	49,666	41,671
Deferred tax asset	6,623	5,461
Prepaid expenses and other assets	2,986	3,582
Total current assets	299,152	300,884
Property, plant and equipment, net	45,808	28,906
Restricted long-term investments		1,610
Goodwill	98,494	94,097
Purchased intangible assets, net	134,349	141,938
Deferred tax asset	1,006	
Other	12,326	6,483
Total Assets	$ 591,135	$ 573,918
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities:		
Accounts payable	$ 13,591	$ 8,421
Accrued compensation	12,043	15,707
Accrued liabilities for legal, audit and warranty	2,086	1,602
Accrued income taxes	3,691	3,659
Other accrued liabilities	2,050	2,202
Total current liabilities	33,461	31,591
Senior subordinated convertible notes	143,750	143,750
Long-term deferred tax liability	46,421	48,765
Other	2,430	1,665
Total Liabilities	226,062	225,771
Shareholders equity:		
Common shares: authorized 100,000; issued and outstanding 52,329 in 2006 and 51,737 in 2005	427,941	407,531
Deferred compensation		(184)
Accumulated deficit	(63,675)	(58,801)
Accumulated other comprehensive income (loss):		

Unrealized loss on investments	(16)	(258)
Cumulative translation adjustments	823	(141)
Total accumulated other comprehensive income (loss)	807	(399)
Total Shareholders Equity	365,073	348,147
Total Liabilities and Shareholders Equity	$ 591,135	$ 573,918

See notes to consolidated financial statements.

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THORATEC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Fiscal Years Ended		
	2006	2005	2004
	(in thousands, except per share data)		
Product sales	$ 214,133	$ 201,712	$ 172,341
Cost of product sales	88,648	78,372	72,119
Gross profit	125,485	123,340	100,222
Operating expenses:			
Selling, general and administrative	73,687	61,804	54,134
Research and development	39,841	32,331	28,657
Amortization of purchased intangible assets	12,055	11,204	11,724
In-process research and development	1,120		
Litigation costs	447	95	733
Total operating expenses	127,150	105,434	95,248
Income (loss) from operations	(1,665)	17,906	4,974
Other income and (expense):			
Interest expense	(4,276)	(4,090)	(2,460)
Interest income and other	8,451	4,237	2,176
Income before taxes	2,510	18,053	4,690
Income tax expense (benefit)	(1,463)	4,855	1,126
Net income	$ 3,973	$ 13,198	$ 3,564
Net income per share			
Basic	$ 0.08	$ 0.27	$ 0.07
Diluted	$ 0.07	$ 0.26	$ 0.07
Shares used to compute net income per share:			
Basic	52,155	49,359	52,187
Diluted	53,270	51,008	53,160

See notes to consolidated financial statements.

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THORATEC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	For the Fiscal Years Ended		
	2006	2005	2004
		(in thousands)	
Net income	$ 3,973	$ 13,198	$ 3,564
Other net comprehensive income (loss):			
Unrealized gain (loss) on available-for-sale investments (net of taxes of $161, $(75), and $(130) in 2006, 2005, and 2004, respectively)	242	67	(376)
Foreign currency translation adjustments (net of taxes of $0, $(256) and $0 in 2006, 2005 and 2004, respectively)	964	(899)	394
Comprehensive income	$ 5,179	$ 12,366	$ 3,582

See notes to consolidated financial statements.

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THORATEC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS EQUITY

	Common Stock		Retained Earnings (Accumulated	Deferred	Accumulated Other Comprehensive Income	Total Shareholders
	Shares	$	Deficit)	Compensation	(Loss)	Equity
			(in thousands)			
BALANCE, JANUARY 3, 2004	56,242	$ 423,045	$ (34,594)	$ (2,630)	$ 415	$ 386,236
Exercise of common stock options for cash	266	2,432				2,432
Issuance of common shares under Employee Stock Purchase Plan	147	1,341				1,341
Tax benefit related to employees and directors stock plans		485				485
Repurchase of common stock, net	(8,255)	(62,200)	(40,484)			(102,684)
Restricted stock forfeiture	(25)	(328)		134		(194)
Amortization of deferred compensation				910		910
Other comprehensive income:						
Unrealized loss on available-for-sale investments (net of taxes of $(130))					(376)	(376)
Foreign currency translation adjustment					394	394
Net income			3,564			3,564
BALANCE, JANUARY 1, 2005	48,375	$ 364,775	$ (71,514)	$ (1,586)	$ 433	$ 292,108
Exercise of common stock options for cash	3,509	36,671				36,671
Issuance of common shares under Employee Stock Purchase Plan	143	1,219				1,219
Tax benefit related to employees and directors stock plans		7,346				7,346
Repurchase of common stock, net	(290)	(3,012)	(485)			(3,497)

Amortization of deferred compensation		357		1,402		1,759
Expense of deferred compensation		175				175
Other comprehensive income:						
Unrealized loss on available-for-sale investments (net of taxes of $(75))					67	67
Foreign currency translation adjustment (net of taxes of $(256))					(899)	(899)
Net income			13,198			13,198
BALANCE, DECEMBER 31, 2005	51,737	$ 407,531	$ (58,801)	$ (184)	$ (399)	$ 348,147
Exercise of common stock options for cash	1,079	13,380				13,380
Issuance of common shares under Employee Stock Purchase Plan	118	1,692				1,692
Tax benefit related to employees and directors stock plans		2,811				2,811
Repurchase of common stock, net	(605)	(7,385)	(8,847)			(16,232)
Share-based compensation		9,912		184		10,096
Other comprehensive income:						
Unrealized loss on available-for-sale investments (net of taxes of $161)					242	242
Foreign currency translation adjustment					964	964
Net income			3,973			3,973
BALANCE, DECEMBER 30, 2006	52,329	$ 427,941	$ (63,675)	$	$ 807	$ 365,073

See notes to consolidated financial statements.

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THORATEC CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Fiscal Years Ended		
	2006	2005	2004
	(in thousands)		
Cash flows from operating activities:			
Net income	$ 3,973	$ 13,198	$ 3,564
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	20,292	18,888	18,782
In process research and development	1,120		
Investment premium amortization (net)	65	374	1,078
Non-cash interest and other expenses	986	588	778
Write-down of capitalized costs	1,588		
Tax benefit related to stock options	2,812	7,346	485
Share-based compensation expense	9,558		
Excess tax benefits from share-based compensation	(1,777)		
Amortization of deferred compensation		1,934	715
Loss on disposal of asset	14	242	122
Change in net deferred tax liability	(6,438)	(5,862)	(2,178)
Changes in assets and liabilities:			
Receivables	(7,389)	(2,853)	(5,082)
Inventories	(8,271)	(3,813)	(3,116)
Prepaid expenses and other assets	(388)	(257)	(30)
Accounts payable and other liabilities	1,013	6,806	3,372
Other	(358)	73	(255)
Net cash provided by operating activities	16,800	36,664	18,235
Cash flows from investing activities:			
Purchases of available-for-sale investments	(354,970)	(181,500)	(197,015)
Sales of available-for-sale investments	340,379	94,016	119,782
Maturities of available-for-sale and restricted investments	66,990	44,385	21,620
Investment in convertible debenture	(5,000)		
Purchases of property, plant and equipment, net	(24,498)	(7,967)	(5,812)
Acquisition of Avox, net of cash acquired	(8,786)		
Other	(152)		
Net cash provided by (used in) investing activities	13,963	(51,066)	(61,425)
Cash flows from financing activities:			
Net proceeds from issuance of convertible notes			139,454
Proceeds from stock option exercises, net	13,380	36,671	2,432
Proceeds from stock issued under employee stock purchase plan	1,692	1,219	1,341
Excess tax benefits from share-based compensation	1,777		
Repurchase and retirement of common shares	(16,232)	(3,497)	(102,684)
Net cash provided by financing activities	617	34,393	40,543

Effect of exchange rate changes on cash and cash equivalents	964	(899)	394
Net increase (decrease) in cash and cash equivalents	32,344	19,092	(2,253)
Cash and cash equivalents at beginning of fiscal year	35,109	16,017	18,270
Cash and cash equivalents at end of fiscal year	$ 67,453	$ 35,109	$ 16,017
Supplemental disclosure of cash flow information:			
Cash paid for taxes	$ 2,053	$ 3,176	$ 1,114
Cash paid for interest	$ 3,414	$ 3,485	$ 1,631
Supplemental disclosure of Non-cash investing and financing activities:			
Transfers of equipment from inventory to property, plant and equipment	$ 1,917	$ 1,283	$ 392
Cancellation of restricted stock	$	$	$ (328)

See notes to consolidated financial statements.

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THORATEC CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Operations and Significant Accounting Policies

The Company and Basis of Presentation

Thoratec Corporation, referred to in these Notes (we, our, us, Thoratec or the Company), is headquartered in Pleasanton, California and is a manufacturer of circulatory support products for use by patients with heart failure (HF). We develop, manufacture and market products that are used by physicians and hospitals for cardiac assist, vascular and diagnostic applications. We organize and manage our business by functional operating entities, which operate in two business segments: Cardiovascular and International Technidyne Corporation (ITC). Our Cardiovascular segment develops, manufactures and markets proprietary medical devices used for circulatory support and vascular graft applications. Our ITC segment designs, develops, manufactures and markets point-of-care diagnostic test systems and incision products. We conduct business both domestically and internationally. On October 3, 2006, ITC, our wholly-owned subsidiary, acquired 100% of the outstanding common shares of privately held A-VOX Systems, Inc. (Avox).

We report on a 52-53 week fiscal year, which ends on the Saturday closest to December 31. The fiscal years ended January 1, 2005 (2004) included 53 weeks, the fiscal year ended December 31, 2005 (2005) included 52 weeks and the fiscal year ended December 30, 2006 (2006) included 52 weeks.

Principles of Consolidation

The consolidated financial statements include the accounts of our Company and our wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Major Customers and Concentration of Credit Risk

We primarily sell our products to large hospitals and distributors. No customer accounted for more than 10% of total product sales in fiscal year 2006, 2005 or 2004. No customer had an accounts receivable balance greater than 10% of total accounts receivable at the end of 2006 or 2005.

Credit is extended based on an evaluation of a customer s financial condition and generally collateral is not required. To date, credit losses have not been significant; however, we maintain allowances for potential credit losses.

Additionally, we are potentially subject to concentrations of credit risk in our investments. To mitigate this credit risk, we invest in high-grade instruments and limit our exposure to any one issuer.

Certain Risks and Uncertainties

We are subject to certain risks and uncertainties and believe that changes in any of the following areas could have a material adverse effect on our future financial position or results of operations: the ability to receive Food and Drug Administration (FDA), and foreign regulatory authorities approval to manufacture, market and sell our products; the ability to direct and manage current and future growth, including the growth of the number of Destination Therapy (DT) procedures performed; physician acceptance of our current or future products; our reliance on specialized suppliers; the ability to manufacture products on an efficient and timely basis and at a reasonable cost and

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in sufficient volume, including the ability to obtain timely deliveries of parts from suppliers; our ability to identify and correct quality issues in a timely manner and at a reasonable cost; new product development and introduction, including FDA approval and market receptiveness; the ability to protect our proprietary technologies or an infringement by us of others patents; the number of heart transplants conducted; any reduction in the number of medical procedures requiring certain types of blood monitoring; our dependence upon distributors and any changes made to our method of distribution; competition from other products; worldwide demand for circulatory support and graft products and blood coagulation testing and skin incision devices and the management of risks inherent in selling in foreign countries; foreign currency fluctuations; the long and variable sales and deployment cycle of our ventricular assist device or VAD products; the ability of third party payors to cover and provide appropriate levels of reimbursement for our products; our subordinated convertible notes, their repayment and potential related dilution from conversion; the ability to realize the full value of our intangible assets; the ability to attract and retain talented employees; stock price volatility due to general economic conditions or future issuances and sales of our stock; the integration of any current and future acquisitions of companies or technologies; the occurrence of natural catastrophic disasters; the ability to achieve and maintain profitability; claims relating to the handling, storage or disposal of hazardous chemicals and biomaterials; and product liability or other claims.

Cash and Cash Equivalents

Cash and cash equivalents are defined as short-term, highly liquid investments with original maturities of 90 days or less.

Investments

Investments classified as short-term available-for-sale are reported at fair value based upon quoted market prices and consist primarily of auction rate securities, corporate and municipal bonds, and U.S. government obligations. All investments mature within two years or less from the date of purchase. Investments with maturities beyond one year may be classified as short-term, if they are available and intended for use in current operations, based on their highly liquid nature or due to the frequency with which the interest rate is reset such as with auction rate securities.

Investments classified as restricted are securities held in U.S. Treasuries held by a third party as collateral for future interest payments related to our senior subordinated convertible notes and are reported at fair value based upon quoted market prices. The investments that relate to interest payments due within one year have been classified as restricted short-term investments and the investments that relate to interest payments due after one year have been classified as restricted long-term investments.

For all investments, temporary differences between cost and fair value are presented as a separate component of accumulated other comprehensive income. We have determined that the investments had no impairments that were other than temporary. The specific identification method is used to determine realized gains and losses on investments.

Fair Value of Financial Instruments

Financial instruments include cash and cash equivalents, short-term available-for-sale investments, restricted short-term and long-term investments, customer receivables, accounts payable, senior subordinated convertible notes and certain other accrued liabilities. The fair values of short-term available-for-sale and restricted short-term and long-term investments are assessed using current market quotations from major investment brokers. The carrying amounts of these investments are adjusted to market value monthly. The carrying amounts of all other financial investments are reasonable estimates of their fair values.

Inventories

Inventories are stated at the lower of cost or market. Cost is based on the first in, first out method.

Property, Plant and Equipment

Property, plant and equipment is stated at cost. Depreciation is computed using the straight-line method based on estimated useful lives of 2 to 30 years. Leasehold improvements are amortized over the lesser of the useful life or the remaining term of the lease. Property, plant and equipment includes certain medical devices rented to customers. Depreciation expense of all rental equipment included in our rental program is recognized ratably over 2 to 3 years and is recorded in cost of product sales.

The Company leases certain facilities for administration, manufacturing and warehousing under long-term operating leases. Any scheduled rent increases, rent holidays and other related incentives are recognized on a straight-line basis over the term of the lease.

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Capitalized Software Costs for Internal Use

We capitalize the costs of computer software developed or obtained for internal use in accordance with Statement of Position 98-1, Accounting for the Costs of Computer Software Developed or Obtained for Internal Use. Capitalized computer software costs consist of purchased software licenses, implementation costs and consulting for certain projects that qualify for capitalization. We expense costs related to preliminary project assessment, research and development, re-engineering, training and application maintenance as incurred. In 2006 and 2005, our ITC segment capitalized costs for a new enterprise resource planning software system (ERP System) of $0.6 million and $1.2 million, respectively. All capitalized software costs are depreciated on a straight-line method over a period of eight years after being placed in service. The ERP System was placed in service in 2006 and depreciation expense of $0.1 million was recorded in 2006.

Valuation of Long-Lived Assets

In accordance with Statement of Financial Accounting Standards (SFAS) No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, we periodically evaluate the carrying value of long-lived assets to be held and used including intangible assets, when events or circumstances warrant such a review. The carrying value of a long-lived asset to be held and used is considered impaired when the anticipated separately identifiable undiscounted cash flows from such an asset are less than the carrying value of the asset. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset. Fair value is determined primarily using the anticipated cash flows discounted at a rate commensurate with the risk involved.

Purchased Intangible Assets and Goodwill

In accordance with SFAS No. 142, Goodwill and Other Intangible Assets, we do not amortize goodwill. We complete an impairment test of goodwill and other intangible assets subject to amortization as required by SFAS No. 142. Upon completion of our impairment tests as of the end of fiscal 2006, we determined that neither goodwill nor intangible assets was impaired.

Sick Leave Accruals

Costs are accrued in connection with sick leave benefits by our ITC segment. These are estimated amounts that have been earned and the Company believes will be paid out to employees in a future period.

Debt Issuance Costs

Costs incurred in connection with the issuance of our senior subordinated convertible notes have been capitalized and are included in other assets on the consolidated balance sheet. These costs are amortized on a straight line basis until May 2011, the point at which we can redeem the debt, and such amortization expense is reflected in Interest expense on the consolidated statements of operations.

Foreign Currency Translation

Our international operations consist primarily of sales and service personnel for our ventricular assist products who report to our U.S. sales and marketing group and are internally reported as part of that group. All assets and liabilities of our non-U.S. operations are translated into U.S. dollars at the period-end exchange rates and the resulting translation adjustments are included in comprehensive income. The period-end translation of the non-functional currency assets and liabilities (primarily assets and liabilities on our UK subsidiary s consolidated balance sheet that are not denominated in UK Pounds) at the period-end exchange rates result in foreign currency gains and losses, which are included in Interest income and other.

Repurchases of Common Stock

In February 2004, the Board of Directors authorized a stock repurchase program under which up to $25.0 million of our common stock could be acquired in the open market or in privately negotiated transactions. The number of shares to be purchased and the timing of purchases were based on several conditions, including the market price of our stock, general market conditions and other factors. The Board of Directors subsequently authorized the repurchase of an additional $60.0 million in May 2004, $25.0 million in July 2004 and $20.0 million in February 2006. Through December 2006, we repurchased 9.5 million shares of our common stock for $119.9 million under these combined programs. For each share repurchased, we reduced the common stock account by the average value per share reflected in the account prior to the repurchase with the excess allocated to retained accumulated deficit. All repurchased shares have been retired.

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Revenue Recognition and Product Warranty

We recognize revenue from product sales of our Cardiovascular and ITC segments when evidence of an arrangement exists, title has passed (generally upon shipment) or services have been rendered, the selling price is fixed or determinable and collectibility is reasonably assured. Sales to distributors are recorded when title transfers upon shipment. One distributor has certain limited product return rights. Other distributors have certain rights of return upon termination of their distribution agreement. A reserve for sales returns is recorded for these customers applying reasonable estimates of product returns based upon significant historical experience in accordance with SFAS No. 48, Revenue Recognition when Right of Return Exists. No other direct sales customers or distributors have return rights or price protection.

Sales of certain Cardiovascular products to first-time customers are recognized when it has been determined that the customer has the ability to use such products. These sales frequently include the sale of products and training services under multiple element arrangements. Training is not essential to the functionality of the products. The amount of revenue under these arrangements allocated to training is based upon fair market value of the training, which is typically performed on behalf of the Company by third party providers. The amount of product sales allocated to the Cardiovascular segment products is done on a fair value basis. Under this approach, the total value of the arrangement is allocated to the training and the Cardiovascular segment products based on the relative fair market value of the training and products.

On December 22, 2006 we modified our distributor agreement with C.R. Bard Corporation to continue the exclusive distribution of our *Vectra* product line until December 31, 2007. We received a payment of $1.8 million in 2004 to induce us to terminate the original C.R. Bard Corporation agreement and enter into a contract with an original term of one year. Of this payment, $1.7 million was recognized in 2005 and $0.1 million was recognized in 2006, over the life of the original contract.

We also rent certain medical devices to customers on a month-to-month or as-used basis. Rental income is based on utilization and is included in product sales as earned. Included in product sales for 2006, 2005 and 2004 are $7.4 million, $7.2 million and $5.8 million, respectively, of income earned from the rental of these medical devices.

The majority of our products are covered by up to a two-year limited manufacturer s warranty. Estimated contractual warranty obligations are recorded when related sales are recognized and any additional amounts are recorded when such costs are probable and can be reasonably estimated and are included in Cost of product sales. The change in accrued warranty expense is summarized in the following table:

	Balance Beginning of Year	Charges to Costs and Expenses	Warranty Expenditures	Balance End of Year
		(in thousands)		
Fiscal year ended 2006	$1,073	$756	$ (797)	$1,032
Fiscal year ended 2005	$ 618	$772	$ (317)	$1,073
Fiscal year ended 2004	$ 829	$173	$ (384)	$ 618

Research and Development Expense

Research and development costs are charged to expense when incurred in accordance with Financial Accounting Standards Board (FASB) Concept No. 2 , Accounting for Research and Development Costs. Major components of research and development expenses consist of personnel costs, including salaries and benefits, and regulatory and clinical costs associated with our compliance with FDA regulations. Research and development costs are largely project driven, and the level of spending depends of the level of project activity planned and subsequently approved and conducted.

Cardiovascular research and development projects primarily involve costs related to our HeartMate II pivotal trial, efforts to develop new products such as the HeartMate II and HeartMate III, and efforts to improve the operation and performance of current products, such as efforts to improve the life of various components of our VAD products. In

addition, during the fourth quarter of 2006, we expensed previously capitalized assets of $1.6 million related to HeartMate III because we will be redefining its attributes to focus on unmet clinical needs.

ITC research and development projects typically involve developing instruments and disposable test cuvettes or cartridges that will be used at the point-of-care. One such system is the Hemochron Signature Elite which was introduced in September of 2005. In addition, ITC devotes research and development efforts to maintain and improve current products based on customer feedback.

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Purchased In-Process Research and Development

Purchased in-process research and development from a business combination represents the value assigned or paid for acquired research and development for which there is no alternative future use as of the date of acquisition. The income approach is generally used to value purchased in-process research and development. The income approach is based on the premise that the value of a security or asset is the present value of the future earning capacity that is available for distribution. Purchased in-process research and development is charged to expense as part of the allocation of the purchase price of a business combination.

In connection with our acquisition of Avox on October 3, 2006, we recorded $1.1 million related of purchased in-process research and development expense for the year ended December 30, 2006.

Share-Based Compensation

On January 1, 2006, we adopted SFAS No. 123(R), Share-Based Payment, which requires the measurement and recognition of compensation expense for all our share-based awards made to employees and directors including, stock options, restricted shares, restricted share units and purchase rights under our Employee Stock Purchase Plan (ESPP) based on estimated fair values utilizing the modified prospective transition method. In March 2005, the SEC issued Staff Accounting Bulletin (SAB) No. 107 providing supplemental implementation guidance for SFAS No. 123(R). We applied the provisions of SAB No. 107 in our adoption of SFAS No. 123(R).

Under the modified prospective transition method, SFAS No. 123(R) applies to new awards and to awards that were outstanding on January 1, 2006 that are subsequently modified, repurchased or cancelled. Additionally, compensation cost recognized in 2006 includes compensation cost for all share-based payments granted prior to, but not yet vested as of, January 1, 2006, based on the grant-date fair value estimated in accordance with the original provisions of SFAS No. 123, Accounting for Stock-Based Compensation, and compensation cost for all share-based payments granted after January 1, 2006 based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123(R). Prior periods were not restated.

We use the Black Scholes option pricing model as the method for determining the estimated fair value of stock options and purchase rights under the ESPP. The Black-Scholes model requires the use of highly subjective and complex assumptions which determine the fair value of share-based awards, including option s expected term and the price volatility of the underlying stock. For restricted shares and restricted stock units, compensation expense is calculated based on the fair value of our stock at the grant date.

Prior to our adoption of SFAS No. 123(R), we accounted for share-based compensation to employees using the intrinsic value method in accordance with Accounting Principals Board Opinion (APB) No. 25, Accounting for Stock Issued to Employees, and accordingly recognized no compensation expense for stock option grants or for our ESPP.

See Note 11, Share-Based Compensation for further information on our equity incentive plans.

Net Income Per Share

Basic net income per share is computed using the weighted average number of common shares outstanding for each respective year. Diluted net income per share amounts reflect the weighted average impact from the date of issuance of all potentially dilutive securities during the years presented unless the inclusion would have had an antidilutive effect for the full year.

Other Comprehensive Income

Other comprehensive income includes net income and is defined as the change in net assets during the period from non-owner sources, including unrealized gains and losses on available-for-sale investments and foreign currency translation adjustments.

Letter of Credit

We maintain an Irrevocable Standby Letter of Credit as part of our workers compensation insurance program. The Letter of Credit is not collateralized. Unless terminated by one of the parties, the Letter of Credit automatically renews on June 30 of each year. At December 30, 2006, our Letter of Credit balance was $460,000.

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Recently Issued Accounting Standards

In December 2004, the FASB issued Statement SFAS No. 123(R) Share-Based Payment , an amendment of SFAS No. 123 and SFAS No. 95. SFAS No. 123(R) requires that share-based compensation be recognized as a cost in the financial statements and that these costs be measured based on the fair value of the share-based compensation. We adopted SFAS No. 123(R) on January 1, 2006.

In May 2005, the FASB issued SFAS No. 154, Accounting Changes and Error Corrections, effective with fiscal years beginning after December 15, 2005 and only affecting the consolidated financial statements in periods in which a change in accounting principle or an error correction is made. This statement replaces APB Opinion No. 20, Accounting Changes, and Statement of Financial Accounting Standard No. 3, Reporting Accounting Changes in Interim Financial Statements, and changes the requirements for the accounting for and reporting of a change in accounting principle or correction of an error to restrospective application. Retrospective application means the application of a different accounting principle to prior accounting periods as if that principle had always been used or as the adjustment of previously issued financial statements to reflect a change in the reporting entity. We adopted this SFAS in 2005.

In November 2005, the FASB issued Staff Position (FSP) 115-1/124-1, The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments. This FSP provides additional guidance on when an investment in a debt or equity security should be considered impaired and when that impairment is deemed other-than-temporary, even if a decision to sell has not been made. The FSP also requires certain disclosures about unrealized losses that have not been recognized as other-than-temporary impairments. Companies are required to apply the guidance in this FSP to reporting periods beginning after December 15, 2005. We adopted this FSP in 2005.

In June 2006, the FASB issued Interpretation No. (FIN) 48, Accounting for Uncertainty in Income Taxes, an interpretation of SFAS No. 109. FIN 48 clarifies the accounting for uncertainty in income taxes effective for fiscal years beginning after December 15, 2006. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 requires that we not recognize in the financial statements the benefit of any of the tax position unless it is more likely than not be sustained on audit, based on the technical merits of the position. FIN 48 also provides guidance related to derecognition, classification, interest and penalties, accounting in interim periods and disclosure. We are currently evaluating the accounting and disclosure requirements of FIN 48 in order to determine the impact that this guidance will have on our results of operations or financial condition when we adopt FIN 48 at the beginning of our fiscal year 2007.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements effective for financial statements issued for fiscal years after November 15, 2007 and interim periods within those fiscal years. SFAS No. 157 does not require any new fair value measurements, but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. We are currently evaluating the accounting and disclosure requirements that this guidance will have on our results of operations or financial condition when we adopt SFAS No. 157 at the beginning of our fiscal year 2008.

In September 2006, the SEC issued Staff Accounting Bulletin (SAB) No. 108 on Quantifying Financial Statement Errors. Due to diversity in practice among registrants, SAB No. 108 expresses the views of the SEC staff in evaluating misstatements in financial statements to determine whether financial statement restatements are necessary. SAB No. 108 is effective for fiscal years ending after November 15, 2006. We have determined that SAB No. 108 will not have a material impact on our reported results from our consolidated financial position of results of operations for the fiscal year 2006.

2. Acquisition

On October 3, 2006, ITC, our wholly-owned subsidiary, completed the acquisition of all of the outstanding common shares of privately held Avox based in San Antonio, Texas. Avox is now a subsidiary of ITC and manufactures two devices that utilize patented light-scattering technology to make direct measurements in whole blood. It is also used in the neo-natal intensive care unit to confirm nitric oxide treatment side effects in newborns and in the emergency department to diagnose smoke inhalation.

The assets and liabilities of Avox were accounted for under the purchase method of accounting and recorded at their fair values

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at October 3, 2006. The excess of the purchase price over the estimated fair values of the net assets acquired was recorded as an increase in goodwill. The results of operations of Avox have been included in the Consolidated Statement of Operations beginning as of October 3, 2006. The final purchase price allocation is subject to the finalization of the valuation of certain assets and liabilities, plans for consolidation of facilities and relocation of employees and other integration activities. As a result, preliminary amounts assigned to assets and liabilities will be subject to revision in future periods.

The total purchase price of our acquisition of Avox has been allocated to the assets and liabilities, based upon estimated fair value as determined primarily by an independent valuation firm. We paid $9.3 million in cash plus $0.2 million of transaction costs which are allocated as follows.

		(in thousands)	Amortization Period
Purchase price allocation:			
Tangible assets acquired	$	2,460	
Liabilities assumed		(1,235)	
Deferred tax liability		(1,894)	
Intangible assets acquired:			
Patents and trademarks		700	6-11 yrs
Developed technology		2,960	6-12 yrs
Customer and distribution relationships and other		820	8-16 yrs
Non-compete agreements		90	3 yrs
In-process research and development		1,120	Expensed
Inventory backlog		100	Expensed
Goodwill		4,397	Indefinite
Total purchase consideration	$	9,518	

The Avox tangible assets acquired consist primarily of cash, accounts receivable, inventory and equipment. The liabilities assumed for Avox consist primarily of income taxes, royalties and accrued compensation.

The patents and trademarks were valued using the industry values for patents. The customer relationships and existing technology were valued using the income approach, which projects the associated revenues, expenses and cash flows attributable to the customer base. These cash flows are then discounted to present value.

During 2006, Avox in-process research and development costs and inventory backlog expensed to operating expenses and cost of goods sold, respectively, on the consolidated statements of operations.

Goodwill represents costs in excess of fair values assigned to the underlying net assets of acquired businesses. Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to annual impairment testing. Refer to Note 6, Purchased Intangibles and Goodwill for further information.

Pro forma financial information has been excluded as the information is considered immaterial.

3. Investments

Short-term investments consist of available-for-sale securities that are carried at fair value and generally mature or reset interest rates between three months and two years from the purchase date. Investments with maturities beyond one year may be classified as short-term based on their highly liquid nature or due to the frequency with which the interest rate is reset and because such marketable securities represent the investment of cash that is available for current operations. We include any unrealized gains and losses on short-term investments, net of tax, in shareholders equity as a component of other comprehensive income.

As required by the terms of our senior subordinated convertible notes, during the second quarter of 2004 (see Note 10), we purchased an aggregate of $9.8 million in U.S. government securities that were pledged to the trustee under

the indenture. These funds are for the exclusive benefit of the holders of the convertible notes to provide for the payment, in full, of the first six semi-annual interest payments. The investments that relate to interest payments due within one year have been classified as restricted short-term investments and the investments that relate to interest payments due after one year have been classified as restricted long-term investments.

Individual securities with a fair value below the cost basis at December 30, 2006 were evaluated to determine if they were other-than-temporarily impaired. These securities were determined not to be impaired, however a temporary decline in value related entirely

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to changes in market interest rates is reflected in the fair value of the investments. In addition, the Company does not intend to liquidate these securities while their fair value is less then cost.

The aggregate market value, cost basis and gross unrealized gains and losses of short-term and long-term available-for-sale investments and restricted short-term and long-term investments for 2006 and 2005 by major security type are as follows:

	Amortized Cost	Gross Unrealized Losses (in thousands)	Fair Value
As of Fiscal Year End 2006:			
Short-term investments:			
Municipal bonds and auction rate securities	$ 122,047	$ (13)	$ 122,034
Commercial paper	4,991		4,991
Restricted investments in U.S. Government obligations	1,694	(13)	1,681
	$ 128,732	$ (26)	$ 128,706
As of Fiscal Year End 2005:			
Short-term investments:			
Municipal bonds and auction rate securities	$ 167,694	$ (323)	$ 167,371
U.S. government obligations	8,500	(45)	8,456
Restricted investments in U.S. Government obligations	3,363	(33)	3,330
	179,557	(401)	179,157
Long-term investments:			
Restricted Investments in U.S. Government obligations	1,639	(29)	1,610
	$ 181,196	$ (430)	$ 180,767

The contractual maturities of available-for-sale investments and restricted investments as of December 30, 2006 and December 31, 2005, regardless of the consolidated balance sheet classifications, are as follows:

	Amortized Cost	Fair Value
	(in thousands)	
As of Fiscal Year End 2006:		
Maturing within one year	$ 111,761	$ 111,748
Due after one year through two years	16,971	16,958
	$ 128,732	$ 128,706
As of Fiscal Year End 2005:		
Maturing within one year	$ 117,768	$ 117,759
Maturing after one year through two years	60,121	59,753
Maturing after two years through three years	3,307	3,255
	$ 181,196	$ 180,767

The cost of available-for-sale investments and restricted investments that are sold is based on specific identification in determining recorded realized gains and losses. In 2006 and 2005 there were no significant gains or losses recorded.

4. Financial Instruments

We conduct business in foreign countries. Our international operations consist primarily of sales and service personnel for our ventricular assist products who report to our U.S. sales and marketing group and are internally reported as part of that group. All assets and liabilities of our non-U.S. operations are translated into U.S. dollars at the period-end exchange rates and the resulting translation adjustments are included in comprehensive income. The period-end translation of the non-functional currency assets and liabilities (primarily assets and liabilities on our UK subsidiary s consolidated balance sheet that are not denominated in UK pounds) at the period-end exchange rates result in foreign currency gains and losses, which are included in our consolidated statements of operations in Interest income and other.

We use forward foreign currency contracts to hedge the gains and losses generated by the re-measurement of non-functional currency assets and liabilities (primarily assets and liabilities on our UK subsidiary s consolidated balance sheet that are not denominated in UK pounds). Our contracts typically have maturities of three months or less.

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Our financial instrument contracts qualify as derivatives under SFAS No. 133 Accounting for Derivative Instrument and Hedging Activities and we value these contracts at the estimated fair value at December 30, 2006. The fair value of the forward currency contracts are included in Interest income and other, and typically offset the foreign currency exchange gains and losses in the statement of operations. The impact of these foreign currency contracts was a loss of $0.2 million and a gain of $0.5 million for the years ended December 30, 2006 and December 31, 2005, respectively. The impact of the foreign currency translation adjustments from conducting our foreign operations was a gain of $0.3 million and a loss of $0.4 million for the years ended December 30, 2006 and December 31, 2005, respectively.

At December 30, 2006, we had forward contracts to sell euros with a notional value of $3.9 million and purchase UK pounds with a notional value of $1.7 million and at December 31, 2005, we had forward contracts to purchase euros with a notional value of $4.4 million. As of December 30, 2006, our forward contracts had an average exchange rate of one U.S. dollar to 0.7551 euros and one U.S. dollar to 0.5095 UK pounds. It is highly uncertain how currency exchange rates will fluctuate in the future. The potential fair value loss for a hypothetical 10% adverse change in foreign currency exchange rates at December 30, 2006, would be approximately $0.9 million.

5. Inventories

Inventories consisted of the following:

	As of Fiscal Years End	
	2006	2005
	(in thousands)	
Finished goods	$ 22,527	$ 19,952
Work-in-process	7,008	6,303
Raw materials	20,131	15,416
Total	$ 49,666	$ 41,671

6. Purchased Intangible Assets and Goodwill

The change in the carrying amount of goodwill was as follows:

	As of Fiscal Years Ended	
	2006	2005
	(in thousands)	
Balance at the beginning of the fiscal year	$ 94,097	$ 94,097
Addition for Avox acquisition	4,397	
Balance as of the end of the fiscal year	$ 98,494	$ 94,097

In February 2001, we merged with Thermo Cardiosystems, Inc. (TCA). Prior to the merger with TCA (the Merger), TCA was a subsidiary of Thermo Electron Corporation (TCI). In 2004, goodwill related to the merger of Thoratec with TCA was adjusted to reflect the utilization of tax net operating loss (NOL) benefits related to our subsidiary in the UK. At the time of the Merger, a deferred tax asset related to these NOL tax benefits was established with a corresponding valuation allowance for the full amount. As our UK subsidiary was expected to begin utilizing a portion of this NOL benefit, a portion of the original valuation allowance was reversed against goodwill.

The components of identifiable intangible assets related to the Merger include: patents and trademarks, core technology (Thoralon, our patent protected bio-material) , and developed technology (patent technology, other than core technology, acquired in the Merger). The components of intangible assets related to the Avox acquisition include: patents and trademarks, developed technology and customer and distributor relationships and other. The combined components are included in purchased intangibles on the consolidated balance sheets are as follows:

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	As of Fiscal Year Ended 2006		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(in thousands)	
Patents and trademarks	$ 38,515	$ (21,350)	$ 17,165
Core technology	37,485	(10,275)	27,210
Developed technology	125,742	(36,564)	89,178
Customer and distributor relationships and other	897	(101)	796
Total purchased intangible assets	$ 202,639	$ (68,290)	$ 134,349

	As of Fiscal Year Ended 2005		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(in thousands)	
Patents and trademarks	$ 37,815	$ (17,692)	$ 20,123
Core technology	37,485	(8,762)	28,723
Developed technology	122,782	(29,750)	93,032
Non-compete agreements	90	(30)	60
Total purchased intangible assets	$ 198,172	$ (56,234)	$ 141,938

Amortization expense related to identifiable intangible assets for fiscal 2006, 2005, and 2004 was $12.1 million, $11.2 million and $11.7 million, respectively. Assuming no further acquisitions by Thoratec, amortization expense is expected to be approximately $12.6 million for each of the next five years. Patents and trademarks have useful lives of eight to twenty years, core and developed technology assets have useful lives ranging from six to twenty-four years and customer and distributor relationships and other have useful lives ranging six to eleven years.

7. Property, Plant and Equipment

Property, plant and equipment consisted of the following:

	As of Fiscal Years Ended	
	2006	2005
	(in thousands)	
Land	$ 4,096	$ 341
Building	12,038	2,445
Building lease	2,285	2,285
Equipment	47,904	44,067
Rental equipment	8,612	7,334
Improvements	16,258	11,526
Total	91,193	67,998
Accumulated depreciation and amortization	(45,385)	(39,092)

$ 45,808	$ 28,906

Depreciation expense in 2006, 2005 and 2004 was $8.2 million, $7.7 million and $7.1 million, respectively. The estimated lives of some computer equipment were adjusted from five years to three years and the estimated lives of certain sales and marketing equipment were adjusted from three years to two years in 2005. These changes are not material to our consolidated financial statements.

Our property, plant and equipment classified as building increased by $9.6 million, land increased by $3.8 million and improvements increased by $4.7 million, primarily due to our purchase of an office building in Pleasanton, California in January 2006.

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8. Other Assets

On August 23, 2006, we purchased a $5 million convertible debenture from Levitronix, LLC (Levitronix), a company with which we have a distribution arrangement to sell Levitronix products. The convertible debenture is a long-term note receivable bearing annual interest at a rate of 5.7%, to be accrued monthly, and at the option of Levitronix, paid in cash or in-kind semi-annually on February 23 and August 23 to maturity on August 23, 2013. We may convert the debenture at our option into membership interests of Levitronix at a conversion price of $4.2857. This conversion feature is not an embedded derivative under SFAS No. 133 because the membership interests of the issuer are not readily convertible to cash. If we had converted the debenture at December 30, 2006, our ownership in Levitronix would have been less than 5%.

At December 30, 2006, the convertible debenture of $5 million plus accrued interest of $0.1 million was included in Other assets on our consolidated balance sheet.

9. Commitments and Contingencies

Leases

We lease manufacturing, office and research facilities and equipment under various operating lease agreements. Future minimum lease payments as of the end of 2006 are noted below as follows:

		(in thousands)
Fiscal year:		
2007	$	2,782
2008		2,580
2009		2,288
2010		2,257
2011		2,115
Thereafter		3,573
Total	$	15,595

Rent expense for all operating leases was $2.7 million in 2006, $2.5 million in 2005 and $2.5 million in 2004.

Commitments

We had various purchase order commitments, which were comprised of supply agreements, totaling approximately $15.4 million and $18.2 million as of the end of 2006 and 2005, respectively.

In addition, we had purchase order commitments totaling $25.2 million as of the end of 2006 primarily for inventory, which will be spent in 2007.

10. Long-Term Debt

In 2004, we completed the sale of $143.8 million initial principal amount of senior subordinated convertible notes due in 2034. The convertible notes were sold to Qualified Institutional Buyers pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended, provided by Rule 144A thereunder. We used $9.8 million of the net proceeds to purchase and pledge to the trustee under the indenture for the exclusive benefit of the holders of the senior subordinated convertible notes, U.S. Treasury securities to provide for the payment, in full, of the first six scheduled interest payments. These securities are reflected on our consolidated balance sheets as restricted short-term and long-term investments. Additional net proceeds were used to repurchase 4.2 million shares of our outstanding common stock for $60 million. The remaining net proceeds have been and will be used for general corporate purposes, which may include additional stock repurchases, strategic investments or acquisitions. Total net proceeds to the Company from the sale were $139.4 million, after debt issuance costs of $4.3 million.

The senior subordinated convertible notes were issued at an issue price of $580.98 per note, which is 58.098% of the principal amount at maturity of the notes. The senior subordinated convertible notes bear interest at a rate of 1.3798% per year on the principal amount at maturity, payable semi-annually in arrears in cash on May 16 and November 16 of each year, from November 16, 2004 until May 16, 2011. Beginning on May 16, 2011, the original

issue discount will accrue daily at a rate of 2.375% per year on a semi-annual bond equivalent basis and, on the maturity date, a holder will receive $1,000 per note. As a result, the aggregate principal amount of the notes at maturity will be $247.4 million.

The deferred debt issuance costs of $2.7 million, net of $1.6 million in amortization, are included in Other assets on the consolidated balance sheet as of December 30, 2006. The deferred debt issuance costs are amortized on a straight line basis until May 2011 at which point the Company can redeem the debt. These charges are included in Interest expense on our consolidated statements of operations.

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	Fiscal Year 2004 (in millions)
Long Term Debt Offering Proceeds:	
Principal amount of convertible notes at maturity	$ 247.4
Original issue discount	(103.7)
Debt issuance costs	(4.3)
Net proceeds	$ 139.4

Holders of the senior subordinated convertible notes may convert their convertible notes into shares of our common stock at a conversion rate of 29.4652 shares per $1,000 principal amount of senior subordinated convertible notes, which represents a conversion price of $19.72 per share, subject to adjustments upon the occurrence of certain events. Holders have been and are able to convert their convertible notes at any point after the close of business on September 30, 2004 if, as of the last day of the preceding the calendar quarter, the closing price of our common stock for at least 20 trading days in a period of 30 consecutive trading days ending on the last trading day of such preceding calendar quarter is more than 120% of the accreted conversion price per share of our common stock. Holders may surrender their senior subordinated convertible notes for conversion on or before May 16, 2029 during the five business day period after any five consecutive trading day period in which the trading price per note for each day of that period was less than 98% of the product of the closing sale price of our common stock and the conversion rate on each such day. However, in such event, if on the day before any conversion the closing sale price of our common stock is greater than the accreted conversion price (i.e., the issue price of the note plus accrued original issue discount divided by the conversion rate) but less than or equal to 120% of the accreted conversion price, instead of shares of our common stock based on the conversion rate, holders will receive cash or common stock, or a combination of each at our option, with a value equal to the accreted principal amount of the notes plus accrued but unpaid interest as of the conversion date. Additionally, holders may convert their senior subordinated convertible notes if we call them for redemption or if specified corporate transactions or significant distributions to holders of our stock have occurred. As of December 30, 2006 no notes had been converted or called.

Holders may require us to repurchase all or a portion of their senior subordinated convertible notes on each of May 16, 2011, 2014, 2019, 2024 and 2029 at a repurchase price equal to 100% of the issue price, plus accrued original issue discount, if any. In addition, if we experience a change in control or a termination of trading of our common stock each holder may require us to purchase all or a portion of such holder s notes at the same price, plus, in certain circumstances, a make-whole premium. This premium is considered an embedded derivative under SFAS No. 133 and has been bifurcated from the senior subordinated convertible notes and recorded at its estimated fair value, $0.2 million at both December 30, 2006 and December 31, 2005. There are significant variables and assumptions used in valuing the make-whole provision including, but not limited to, the Company s stock price, volatility of the Company s stock, the probability of our being acquired and the probability of the type of consideration used by a potential acquirer.

We may redeem either in whole or in part, any of the senior subordinated convertible notes, at any time beginning May 16, 2011, by giving the holders at least 30 days notice, either in whole or in part at a redemption price equal to the sum of the issue price and the accrued original issue discount.

The senior subordinated convertible notes are subordinated to all of our senior indebtedness and structurally subordinated to all indebtedness of our subsidiaries. Therefore, in the event of a bankruptcy, liquidation or dissolution of us or one or more of our subsidiaries and acceleration of or payment default on our senior indebtedness, holders of the convertible notes will not receive any payment until holders of any senior indebtedness we may have outstanding have been paid in full.

The aggregate fair value of the convertible notes at December 30, 2006, based on market quotes, was $161.8 million.

11. Share-Based Compensation

Effective January 1, 2006 we adopted SFAS No. 123(R), Share-Based Payment utilizing the modified prospective transition method. Prior to the adoption of SFAS No. 123(R), we accounted for share-based compensation to employees using the intrinsic value method in accordance with APB No. 25, Accounting for Stock Issued to Employees, and accordingly recognized no compensation expense for stock option grants or for our employee stock purchase plan.

Under the modified prospective transition method, SFAS No. 123(R) applies to new awards and to awards that were outstanding on January 1, 2006 that are subsequently modified, repurchased or cancelled. Additionally, compensation cost recognized in 2006 includes compensation cost for all share-based payments granted prior to, but not yet vested as of, January 1, 2006, based on the grant-date fair value estimated in accordance with the original provisions of SFAS No. 123, Accounting for Stock-Based Compensation,

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and compensation cost for all share-based payments granted after January 1, 2006 based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123(R). Prior periods were not restated.

Share-based compensation cost for 2006 was approximately $9.6 million and the related tax benefit was $1.8 million. The impact to net income per share and fully diluted per share were $0.14 and $0.14 lower, respectively. In addition, share-based compensation costs of $0.5 million was included in inventory. For the fiscal year 2006, excess tax benefits of $1.8 million were reported as financing cash flows rather than operating cash flows.

We receive a tax deduction for certain stock option exercises during the period the options are exercised, generally for the excess of the fair market value of the options at the date of exercise over the exercise prices of the options. Prior to the adoption of SFAS No. 123(R), we reported all tax benefits resulting from the exercise of stock options as operating cash flows in our consolidated statements of cash flows. In accordance with SFAS No. 123(R), beginning in 2006, our consolidated statements of cash flows presentation reports the tax benefits from the exercise of stock options as financing cash flows.

Cash proceeds from the exercise of stock options were $13.4 million and cash proceeds from our employee stock purchase plan were $1.7 million for the fiscal year ended December 30, 2006. The actual income tax benefit realized from stock option exercises was $2.8 million for the same period.

The following table illustrates the effect on operating results and per share information had we accounted for our share-based compensation plans in accordance with SFAS No. 123, rather than using the intrinsic value method in accordance with APB No. 25, for the fiscal years 2005 and 2004:

	For the Fiscal Years Ended	
	2005	2004
	(in thousands, except per share data)	
Net income (loss):		
As reported	$ 13,198	$ 3,564
Add: Share-based compensation expense included in reported net income, net of related tax effects	1,412	793
Deduct: Total share-based compensation expense determined under fair value based method for all awards, net of related tax effects	(6,793)	(12,524)
Pro forma net income (loss)	$ 7,817	$ (8,167)
Basic and Diluted net income per share:		
As reported		
Basic	$ 0.27	$ 0.07
Diluted	$ 0.26	$ 0.07
Pro forma net income (loss)		
Basic	$ 0.16	$ (0.16)
Diluted	$ 0.15	$ (0.16)

Equity Plans

In 1993, our Board of Directors approved the 1993 Stock Option Plan (1993 SOP), which permitted us to grant options to purchase up to 666,667 shares of our common stock. This plan expired in 2003 and no options were granted after its expiration. Prior to its expiration, all available options were granted under the plan.

In 1996, the Board of Directors and our shareholders approved the 1996 Stock Option Plan (1996 SOP) and the 1996 Non-employee Directors Stock Option Plan (Directors Option Plan). The Directors Option Plan was amended by the Board of Directors in November 1996, amended again by approval of our shareholders in May 1997, amended again by approval of our shareholders in May 1999, amended again by the Board of Directors in February 2003, amended again by approval of our shareholders in May 2003, and amended again by the Board of Directors in October 2003. The 1996 SOP consists of two parts. Part One permitted us to grant options to purchase up to 500,000

shares of common stock. This plan expired in February 2006. No options were granted during the fiscal year ended 2006 under Part One of the 1996 SOP. Part Two related to our former Chief Executive Officer, D. Keith Grossman, and permitted us to grant non-qualified options to Mr. Grossman to purchase up to 333,333 shares of common stock, all of which were granted in 1996. The Directors Option Plan, as amended, permitted us to grant options for a total of up to 550,000 shares of our common stock and provided for an initial grant to a director of an option to purchase 15,000 shares upon appointment to the Board, and annual grants thereafter to purchase 7,500 shares (granted in four equal installments). Provisions also include immediate vesting of both the initial and annual grants and a five year term of the options. In addition, the plan administrator has been provided with the discretion to impose any repurchase rights in our favor on any optionee. The Directors Option Plan expired in February 2006 and no options were granted under the Directors Option Plan during the fiscal year ended December 30, 2006.

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In 1997, the Board of Directors adopted the 1997 Stock Option Plan (1997 SOP). The 1997 SOP was amended by approval of our shareholders in February 2001, amended by the Board of Directors in December 2001, amended again by approval of our shareholders in May 2003, and amended again by the Board of Directors in March 2006. The 1997 SOP allowed us to grant up to a total of 13.7 million shares of common stock in the form of stock options, restricted stock awards, and stock bonuses. This plan expired in May 2006. Prior to the plan s expiration, 1.5 million options were granted at fair market value and 0.3 million shares were granted as restricted stock awards and restricted stock units during 2006.

In April 2006, the Board of Directors approved the 2006 Incentive Stock Plan (2006 Plan), and in May 2006 the 2006 Plan was amended by the Board of Directors and approved by our shareholders. The 2006 Plan allows us to grant to employees and directors of, and consultants to, the Company up to a total of 2.2 million shares of stock in the form of options, restricted stock bonuses, restricted stock purchases, restricted stock units, stock appreciation rights, phantom stock units, performance share bonuses, and performance share units. The 2006 Plan stipulates that no more than 50% of the authorized shares may be issued as restricted stock bonuses, restricted stock units, phantom stock units, performance share bonuses or performance share units. Following the approval of this plan, approximately 176,000 options were granted at fair market value and approximately 113,000 shares of restricted stock and restricted stock units were granted under this plan during the fiscal year ended December 30, 2006. At December 30, 2006, 1.9 million shares remained available for grant under the 2006 Plan.

Stock Options

Five of the common stock option plans or equity incentive plans described above had options outstanding at December 30, 2006, with only the 2006 Plan available for future grants. Options under the 2006 Plan may be granted by the Board of Directors at the fair market value on the date of grant and generally become fully exercisable within four years after the grant date and expire between five and ten years from the date of grant. Vesting on options granted to officers will be accelerated in certain circumstances following a change in control of the Company.

The fair value of each option granted is estimated at the date of grant using the Black-Scholes option pricing model. The risk-free interest rate is based on the United States Treasury yield curve in effect at the time of grant. Expected volatilities are based on the historical volatility of our stock. The expected term of options represents the period of time that options are expected to be outstanding. Beginning in 2006, we have used separate assumptions for groups of employees (for example, officers) that have similar historical exercise behavior. The range below reflects the expected option impact of these separate groups.

The fair value of each option granted is estimated at the date of grant using the Black-Scholes option pricing model with the following assumptions used for grants made:

	For the Fiscal Years Ended		
	2006	**2005**	**2004**
Risk-free interest rate	4.54%	4.20%	4.36%
Expected volatility	40%	45%	62%
Expected option life	3.85 5.24 years	3.74 years	3.36 years
Dividends	None	None	None

At December 30, 2006, there was $6.1 million of unrecognized compensation expense related to stock options, which expense we expect to recognize over a weighted average period of 1.30 years. The aggregate intrinsic value of in-the-money options outstanding, based on a market price of the Company s common stock on December 29, 2006, the last trading day of 2006, of $17.58, was $25.2 million, and the aggregate intrinsic value of options exercisable was $20.3 million. The total intrinsic value of options exercised was $6.5 million for the fiscal year ended December 30, 2006, respectively.

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Stock option activity is summarized as follows:

	Number of Options (in thousands)	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contract Life (years)
Outstanding at fiscal year end 2004 (5,111 exercisable at $11.38 weighted average price per share)	10,276	$ 11.97	5.26
Granted	609	14.65	
Cancelled and expired	(931)	13.77	
Exercised	(3,509)	10.44	
Outstanding at fiscal year end 2005 (3,574 exercisable at $12.64 weighted average price per share)	6,445	$ 12.80	5.91
Granted	1,625	20.72	
Cancelled and expired	(406)	15.50	
Exercised	(1,079)	12.46	
Outstanding at fiscal year end 2006 (4,064 exercisable at $12.75 weighted average price per share)	6,585	$ 14.65	6.74

Restricted Stock

The 1997 SOP allowed and the 2006 Plan allows for the issuance of restricted stock awards and restricted stock units, which awards or units may not be sold or otherwise transferred until certain restrictions have lapsed. The unearned share-based compensation related to these awards is being amortized to compensation expense over the period of the restrictions, generally four years. The expense for these awards was determined based on the market price of our shares on the date of grant multiplied by the total number of shares that were granted. The restricted stock awards to executive officers, and to a consultant described below, were the only such awards issued prior to January 1, 2006.

In 2001, an award of 250,000 shares of restricted stock was made to our then Chief Executive Officer, Mr. Grossman, under our 1997 SOP. This award was valued at $4.1 million, recorded as deferred compensation, and was being amortized over the restriction lapse period prior to the acceleration described below. In 2002, a similar award of 50,000 shares was made to another of our executive officers. This award was valued at $0.3 million, was recorded as deferred compensation, and was being amortized over the restriction lapse period. This award was forfeited in December 2004 upon the resignation of the executive officer and the previously recognized amortization of deferred compensation of $0.2 million was reversed. In addition, 25,000 shares of restricted stock were granted to a consultant in December 2004. This award is re-valued each period at the current market rate and expense is recognized ratably over the restriction lapse period of three years. In anticipation of the settlement of the securities litigation cases, the remaining expense related to the award of $0.2 million was recorded in the second quarter of 2006. In August 2005, Mr. Grossman announced his resignation and entered into an agreement which amended his employment contract and provided that he would remain employed by the Company for up to three months following the appointment of the replacement CEO in order to assist in the transition. The transition period ended on February 2, 2006. Mr. Grossman remained a member of the Company s Board of Directors providing consulting services to the Company until November 2, 2006, pursuant to a Consulting Agreement dated August 15, 2005. Pursuant to the terms of the amended employment agreement with Mr. Grossman, the restriction on the remaining 125,000 shares of such

restricted common stock was removed on an accelerated basis. The share-based compensation expense for the consultant and Mr. Grossman was $0.4 million and $1.9 million for the fiscal year ended December 30, 2006 and December 31, 2005, respectively.

In the year ended 2006, we issued restricted stock to employees and directors under the 1997 SOP and the 2006 Plan. Share-based compensation expense related to these restricted stock grants was $1.5 million for the fiscal year ended December 30, 2006. As of December 30, 2006, we had $3.6 million of unrecognized compensation expense associated with these restricted stock awards, which amount we expect to recognize over a weighted average period of 3.24 years. The total fair value of the shares granted during the fiscal year ended December 30, 2006 was $7.1 million.

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The following table summarizes the restricted stock award activity in the years ended 2005 and 2006:

	Number of Shares (in thousands)	Weighted Average Grant Date Fair Value
Outstanding unvested restricted stock at January 1, 2005	275	$ 15.65
Granted		
Vested	(125)	16.56
Forfeited or expired		
Outstanding unvested restricted stock at December 31, 2005	150	14.89
Granted	448	18.03
Vested	(157)	15.89
Forfeited or expired	(19)	19.90
Outstanding unvested restricted stock at December 30, 2006	422	$ 17.63

Restricted Stock Units

During the fiscal year of 2006, we granted restricted stock units to certain of our non-U.S. employees under the 1997 SOP and the 2006 Plan. At December 30, 2006, there was $0.1 million of unrecognized compensation expense related to these restricted stock units, which amount we expect to recognize over a weighted average period of 3.25 years. The aggregate intrinsic value of the units outstanding, based on the Company s stock price on December 30, 2006, was $0.2 million and 100 units vested during the year ended December 30, 2006. Restricted stock unit activity is summarized as follows:

	Number of Units (in thousands)	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contract (in years)
Outstanding units at December 31, 2005		$	
Granted	10	19.08	
Released			
Forfeited or expired			
Outstanding units at December 30, 2006	10	$ 19.08	1.74

Employee Stock Purchase Plan

In May 2002, our shareholders approved the Company s ESPP under which 500,000 shares of common stock had been reserved for issuance. In addition, the ESPP provides for an annual increase of up to 250,000 shares in the total number of shares available for issuance under the ESPP on March 1 of each year. The number of shares available for issuance under the ESPP was increased by 250,000 shares in March 2006 but was not increased in 2005. Eligible employees may purchase a limited number of shares of the Company s stock at 85% of the lower of the market value at the offering date or market value on the purchase date. Approximately 118,200 shares of common stock were issued in 2006 for $1.7 million. Approximately 143,000 shares of common stock were issued in 2005 for $1.2 million. As of the end 2006, approximately 219,100 shares remained available for issuance under this plan.

The estimated subscription date fair value of the current offering under the ESPP is approximately $0.9 million using the Black-Scholes option pricing model and the following assumptions:

	For the Fiscal Years Ended		
	2006	**2005**	**2004**
Risk-free interest rate	4.83%	3.09%	1.32%
Expected volatility	40%	48%	61%
Expected option life	0.50 years	0.50 years	0.50 years
Dividends	None	None	None

At December 30, 2006, there was approximately $0.2 million of unrecognized compensation expense related to ESPP subscriptions that began on November 1, 2006, which amount we expect to recognize during the first four months of 2007.

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12. Common and Preferred Stock

We have authorized 100 million shares of no par common stock, and 2.5 million shares of no par preferred stock, of which 540,541 shares have been designated Series A, 500,000 shares have been designated Series B and 100,000 shares have been designated Series RP.

The Series A preferred stock is entitled to cumulative annual dividends of $1.30 per share and has a liquidation preference of $9.25 per share plus cumulative unpaid dividends. We may redeem the Series A preferred stock at any time of its liquidation preference. Each share of Series A preferred stock is convertible into one-third of a share of common stock, after adjusting for earned but unpaid dividends. At December 30, 2006, no shares of Series A preferred stock were outstanding.

The Series B preferred stock is senior to the Series A in all preferences. Series B preferred stock is entitled to cumulative annual dividends of $0.96 per share and has a liquidation preference of $8.00 per share plus cumulative unpaid dividends. The Series B preferred stock is redeemable by us five years after its issuance for $8.00 per share plus cumulative unpaid dividends. Each share of Series B preferred stock is convertible at any time into three and one-third shares of common stock and has certain anti-dilution provisions. Series B preferred shares vote on an as-converted basis. At December 30, 2006, no shares of Series B preferred stock were outstanding.

On May 2, 2002, we adopted a shareholder rights plan, which we call the Rights Plan. Under the Rights Plan, we distributed one purchase right for each share of common stock outstanding at the close of business on May 17, 2002. If a person or group acquires 15% or more of our common stock in a transaction not pre-approved by our Board of Directors, each right will entitle its holder, other than the acquirer, to buy our common stock at 50% of its market value for the right s then current exercise price (initially $70.00). In addition, if an unapproved party acquires more than 15% of our common stock, and our Company or our business is later acquired by the unapproved party or in a transaction in which all shareholders are not treated alike, shareholders with unexercised rights, other than the unapproved party, will be entitled to purchase common stock of the acquirer with a value of twice the exercise price of the rights. Each right also becomes exercisable for one one-thousandth of a share of our Series RP preferred stock at the right s then current exercise price ten days after an unapproved third party makes, or announces an intention to make, a tender offer or exchange offer that, if completed, would result in the unapproved party acquiring 15% or more of our common stock. Our Board of Directors may redeem the rights for a nominal amount at any time before an event that causes the rights to become exercisable. The rights will expire on May 2, 2012.

In connection with the Rights Plan, we designated 100,000 no par shares of Series RP preferred stock. These shares, if issued, will be entitled to receive quarterly dividends and liquidation preferences. There are no shares of Series RP preferred stock issued and outstanding and we do not anticipate issuing any shares of Series RP preferred stock except as may be required under the Rights Plan.

13. Retirement Savings Plan

Substantially all of our full-time employees are eligible to participate in a 401(k) retirement savings plan (the Retirement Plan). Under the Retirement Plan, employees may elect to contribute up to 25% of their eligible compensation to the Retirement Plan with Thoratec making discretionary matching contributions, subject to certain IRS limitations. In 2006, 2005 and 2004, our matching contribution was 50%, up to the first 6% of eligible employee plan compensation. Employees vest in our matching contribution to the Retirement Plan at the rate of 25% per year, with full vesting after four years of service with us. In 2006, 2005 and 2004, we made contributions to the Retirement Plan of approximately $1.2 million, $0.9 million and $0.9 million, respectively.

In 2004, we established a non-qualified, unfunded deferred compensation plan for certain management employees and our Board of Directors. Amounts deferred and contributed under the deferred compensation plan are credited or charged with the performance of investment options offered under the plan and elected by the participants. The liability for compensation deferred under this plan was $1.6 million and $0.8 million at December 30, 2006 and December 31, 2005, respectively, and is included in Other on our consolidated balance sheets. We manage the risk of changes in the fair value of the liability for deferred compensation by electing to match our liability under the plan with an investment vehicle that offsets a substantial portion of the Company s exposure. The cash value of the investment vehicle, which includes funding for future deferrals, was $2.2 million and $1.5 million at December 30, 2006 and December 31, 2005, respectively, and is included in Other assets on our consolidated balance sheets.

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14. Taxes on Income

The provision for income tax expense (benefit) is as follows:

	For the Fiscal Years Ended		
	2006	2005	2004
	(in thousands)		
Current:			
Federal	$ 116	$ 2,647	$ 401
State	747	1,687	529
Foreign	1,069	980	1,126
	1,932	5,314	2,056
Deferred:			
Federal	$ (2,095)	$ 1,631	$ (112)
State	(1,350)	(2,090)	(818)
Foreign	50		
	(3,395)	(459)	(930)
Total income tax provision (benefit)	$ (1,463)	$ 4,855	$ 1,126

The domestic and foreign components of income before income taxes are as follows:

	For the Fiscal Years Ended		
	2006	2005	2004
	(in thousands)		
Domestic	$ (2,072)	$ 14,857	$ 1,470
Foreign	4,582	3,196	3,220
Income before income taxes	$ 2,510	$ 18,053	$ 4,690

The provision for income taxes in the accompanying statements of operations differs from the provision calculated by applying the U.S. federal statutory income tax rate of 35% to income before taxes due to the following:

	For the Fiscal Years Ended					
	2006		2005		2004	
	(in thousands, except percentages)					
U.S. federal statutory income tax expense	$ 878	35.0%	$ 6,318	35.0%	$ 1,641	35.0%
State income tax benefit, net of federal tax expense	(258)	(10.3)	(421)	(2.3)	(5)	(.1)
Non-deductible expenses	1,915	76.3	594	3.2	547	11.5
Research and development and other credit carryforwards	(399)	(15.9)	(432)	(2.3)	(798)	(16.9)
Foreign earnings permanently reinvested	(483)	(19.2)				
	(1,606)	(64.0)	(1,204)	(6.7)	(259)	(5.5)

Tax advantaged investment income						
Return-to-provision true-up	(1,059)	(42.2)				
ARB 51 true-up	(336)	(13.4)				
In process research and development	392	15.6				
Extraterritorial income exclusion,	(315)	(12.5)				
Domestic production activities	(50)	(2.1)				
Tax reserves	(142)	(5.6)				
	$ (1,463)	(58.3)%	$ 4,855	26.9%	$ 1,126	24.0%

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Deferred income taxes reflect the net tax effects of: (a) temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, and (b) operating loss and tax credits carryforwards.

Significant components of deferred taxes are as follows:

	As of Fiscal Year	
	2006	2005
	(in thousands)	
Deferred tax assets:		
Write-off of acquired technology	$ 628	$ 775
Reserves and accruals	2,990	2,540
Depreciation and amortization	1,066	
Inventory basis difference	2,721	2,394
Research and development and other credit carryforwards	6,501	7,351
Net operating loss carryovers		901
Other, net	117	30
Total deferred tax assets	14,023	13,991
Deferred tax liabilities:		
Purchased intangibles	(52,765)	(55,985)
Depreciation and amortization		(1,264)
Other, net	(50)	(46)
Total deferred tax liabilities	(52,815)	(57,296)
Net deferred tax liabilities	$ (38,792)	$ (43,304)

At the end of 2006, we had available tax carryforwards as follows:

Federal alternative minimum tax credits of approximately $0.5 million which may be carried forward indefinitely;

Research and development tax credits for federal and state income tax purposes of approximately $2 million and $5 million, respectively. Federal research and development tax credit carryforwards expire from 2010 through 2026. State research and development tax credits generally carry-over indefinitely; and

Foreign tax credit carryforwards of approximately $0.8 million will expire in 2015 if not utilized.

We have utilized the short method for purposes of determining our hypothetical stock option pool under SFAS No. 123(R). At December 30, 2006 the stock option pool was $5.4 million

The federal and state provisions do not reflect certain tax savings resulting from tax benefits associated with our various stock option plans. These savings have been credited to common shares and were $2.8 million, $7.5 million and $0.5 million in 2006, 2005 and 2004, respectively.

Foreign earnings were considered to be permanently reinvested in operations outside the United States through 2006.

We provided U.S. income taxes on the earnings of foreign subsidiaries unless such earnings are considered permanently reinvested in their respective foreign jurisdictions. At December 31, 2006, the cumulative earnings which U.S. income taxes have not been provided were approximately $5.8 million. A determination of the potential deferred tax liability which would result from these earnings is not practicable at this time.

At December 30, 2006, we were under examination by the State of New Jersey for the years 1997 through 2000. In January 2007, we settled this claim for $1.0 million, and have fully reserved for this in our consolidated financial statements.

We believe we have provided adequate amounts for anticipated tax audit adjustments in the U.S., state and other foreign tax jurisdictions based on our estimate of whether, and the extent to which, additional taxes and interest may be due. If events occur which indicate payment of these amounts are unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. If our estimate of tax liabilities proves to be less than the ultimate assessment, a further charge to expense would result.

15. Enterprise and Related Geographic Information

We organize and manage our business by functional operating entities. Our functional entities operate in two segments: Cardiovascular and ITC. The Cardiovascular segment develops, manufactures and markets proprietary medical devices used for circulatory support and vascular graft applications. The ITC segment designs, develops, manufactures and markets point-of-care diagnostic test systems and incision devices.

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Business segments:

	For the Fiscal Years Ended		
	2006	**2005**	**2004**
		(in thousands)	
Product sales:			
Cardiovascular	$ 133,710	$ 125,181	$ 103,002
ITC	80,423	76,531	69,339
Total product sales	$ 214,133	$ 201,712	$ 172,341
Income (loss) before taxes:			
Cardiovascular(a) (d)	$ 5,326	$ 15,103	$ 2,129
ITC(a)(b)(d)	5,733	13,657	9,940
Corporate (c) (d)	(12,277)	(10,759)	(6,362)
Litigation costs (e)	(447)	(95)	(733)
Total operating income (loss)	(1,665)	17,906	4,974
Other income and (expense):			
Interest expense	(4,276)	(4,090)	(2,460)
Interest income and other	8,451	4,237	2,176
Total income before taxes	$ 2,510	$ 18,053	$ 4,690
Total assets:			
Cardiovascular	$ 319,604	$ 307,043	$ 314,636
ITC	58,030	41,701	38,437
Corporate (c)	213,501	225,174	164,961
Total assets	$ 591,135	$ 573,918	$ 518,034
Depreciation and amortization(f):			
Cardiovascular	$ 17,051	$ 16,728	$ 16,854
ITC	2,991	2,160	1,928
Corporate (c)	250		
Total depreciation and amortization	$ 20,292	$ 18,888	$ 18,782
Capital expenditures (f) (g):			
Cardiovascular	$ 15,911	$ 5,692	$ 3,734
ITC(d)	3,976	3,724	2,477
Corporate (c)	6,554		
Total capital expenditures	$ 26,441	$ 9,416	$ 6,211

(a) Amortization expense of

$11.8 million, $11.0 million and $11.6 million for the fiscal years ended 2006, 2005 and 2004 respectively, related to the Cardiovascular segment. The ITC segment had amortization expense of $0.3 million, $0.2 million and $0.2 million for 2006, 2005 and 2004 respectively.

(b) ITC includes in-process research and development expenses of $1.1 million.

(c) Represents unallocated costs, not specifically identified to any particular business segment.

(d) Includes additional share-based compensation expense of $5.5 million, $2.7 million and $1.4 million for Cardiovascular, ITC and Corporate, respectively, for

the fiscal year ended 2006.

(e) Relates to litigation expenses not specifically identified to a particular business segment.

(f) Capital expenditures for the fiscal year ended 2006 include acquisition of an office building in Pleasanton, California allocated to the Cardiovascular segment of $10.2 million, net of depreciation expense of $0.4 million and Corporate of $6.7 million, net of depreciation expense of $0.2 million.

(g) Capital expenditures include inventory transfers of $1.9 million, $1.3 million and $0.4 million for 2006, 2005 and 2004 respectively.

Geographic Areas:

	For the Fiscal Years Ended		
	2006	**2005**	**2004**

		(in thousands)	
Product sales:			
Domestic	$ 162,089	$ 154,711	$ 133,081
International	52,044	47,001	39,260
Total	$ 214,133	$ 201,712	$ 172,341

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16. Litigation

Litigation costs consisted of the following:

	For the Fiscal Years Ended		
	2006	2005	2004
	(in thousands)		
Litigation	$ 447	$ 95	$ 733

On August 3, 2004, a putative Federal securities law class action entitled *Johnson v. Thoratec Corporation, et al.* was filed in the U.S. District Court for the Northern District of California on behalf of purchasers of our publicly traded securities between April 28, 2004 and June 29, 2004. Subsequent to the filing of the *Johnson* complaint, additional complaints were filed in the same court alleging substantially similar claims. On November 24, 2004, the Court entered an order consolidating the various putative class action complaints into a single action entitled *In re Thoratec Corp. Securities Litigation* and thereafter entered an order appointing Craig Toby as Lead Plaintiff pursuant to the Private Securities Litigation Reform Act of 1995. On or about January 18, 2005, Lead Plaintiff filed a Consolidated Complaint. The Consolidated Complaint generally alleged violations of the Securities Exchange Act of 1934 by Thoratec, its former Chief Executive Officer, its former Chief Financial Officer, and its Cardiovascular Division President based upon, among other things, alleged false statements about the Company s expected sales and the market for HeartMate XVE as a Destination Therapy treatment. The Consolidated Complaint sought to recover unspecified damages on behalf of all purchasers of the Company s publicly traded securities during the putative class period. On March 4, 2005, defendants moved to dismiss the Consolidated Complaint.

On or about September 1, 2004, a shareholder derivative action entitled *Wong v. Grossman* was filed in the California Superior Court for Alameda County based upon essentially the same facts as the Federal securities class action suit referred to above. This action named the individual members of our Board of Directors, including the former Chief Executive Officer and certain other former and current executive officers of the Company, as defendants, and alleged that the defendants breached their fiduciary duties and wasted corporate assets, and that certain of the defendants traded in Thoratec securities while in possession of material nonpublic information.

On May 11, 2006, the U.S. District Court granted our motion to dismiss. The Plaintiff filed an amended complaint, and the parties proceeded to mediation. As the result of the mediation, the parties to both the Federal securities law putative class action and the state shareholder derivative action have executed and delivered stipulations of settlement pursuant to which they release the named defendants in these actions from all pending actions in exchange for a total of $3.4 million, in the Federal securities law putative class action, and $0.3 million and the implementation of certain changes in our corporate governance policies, in the state shareholder derivative action. These stipulations to the Federal securities law putative class action and the state shareholder derivative action were approved by the applicable courts on November 17, 2006 and November 21, 2006, respectively, and both have subsequently become final and non-appealable.

We carry sufficient insurance to cover the settlement amounts contemplated by the settlement. We accrued $0.3 million of litigation expense in the second quarter of 2006 for this settlement, which amount represents the remaining portion of the Company s self-insured retention.

17. Net Income Per Share

Basic net income per share is computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted net income per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock. Options to purchase 1.9 million, 2.0 million and 6.2 million shares of common stock were not included in the computation of diluted net income per share for 2006, 2005 and 2004, respectively, as their inclusion would have been antidilutive. In addition, the computation of diluted net income per share for 2006, 2005 and 2004 excludes the effect of assuming the conversion of our convertible notes, which are convertible at $19.72 per share, because their effect would have been antidilutive for the full year.

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Basic and diluted net income per share were calculated as follows:

	For the Fiscal Years Ended		
	2006	2005	2004
	(in thousands, except per share data)		
Net income	$ 3,973	$ 13,198	$ 3,564
Weighted average number of common shares-Basic	52,155	49,359	52,187
Dilutive effect of stock-based compensation plans	1,115	1,649	973
Weighted average number of common shares-Diluted	53,270	51,008	53,160
Net income per share			
Basic	$ 0.08	$ 0.27	$ 0.07
Diluted	$ 0.07	$ 0.26	$ 0.07

18. Quarterly Results of Operations (Unaudited)

The following is a summary of our unaudited quarterly results of operations for 2006 and 2005:

	First	Second	Third	Fourth
	(in thousands, except per share data)			
Fiscal Year 2006				
Product sales	$48,755	$54,783	$51,747	$58,848
Gross profit	28,647	32,129	29,669	35,040
Net income (loss)	(930)	337	1,490	3,076
Net income (loss) per share				
Basic	$ (0.02)	$ 0.01	$ 0.03	$ 0.06
Diluted	$ (0.02)	$ 0.01	$ 0.03	$ 0.05
Fiscal Year 2005				
Product sales	$50,488	$47,588	$48,841	$54,795
Gross profit	30,440	29,201	30,231	33,468
Net income	3,135	2,421	3,102	4,540
Net income per share				
Basic	$ 0.07	$ 0.05	$ 0.06	$ 0.09
Diluted (a)	$ 0.06	$ 0.05	$ 0.06	$ 0.08

(a) The total of net income per share, diluted, for the quarters is not equal to the full year due to the inclusion of the 7.3 million shares available upon conversion of our

convertible notes as they were dilutive for the fourth quarter of 2005 but not for the full year.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

Item 9A. ***Controls and Procedures***

Attached as exhibits to this Form 10-K are certifications of our Chief Executive Officer and Chief Financial Officer, which are required in accordance with Rule 13a-14 of the Securities Exchange Act of 1934, as amended (the Exchange Act). This Controls and Procedures section includes information concerning the controls and controls evaluation referred to in the certifications. Item 8 on this Form 10-K sets forth the report of Deloitte & Touche LLP, our independent registered public accounting firm, regarding its audit of our internal control over financial reporting and of management s assessment of internal control over financial reporting as of December 30, 2006. This section should be read in conjunction with management s report on internal control over financial reporting as of December 30, 2006, set forth below, and the report of Deloitte & Touche LLP for a more complete understanding of the topics presented.

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Disclosure Controls and Procedures

An evaluation was performed under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act, as of December 30, 2006. The evaluation of our disclosure controls and procedures included a review of our processes and implementation and the effect on the information generated for use in this Annual Report on Form 10-K. In the course of this evaluation, we sought to identify any significant deficiencies or material weaknesses in our disclosure controls and procedures, to determine whether we had identified any acts of fraud involving personnel who have a significant role in our disclosure controls and procedures, and to confirm that any necessary corrective action, including process improvements, was taken. This type of evaluation is done quarterly so that our conclusions concerning the effectiveness of these controls can be reported in our periodic reports filed with the SEC. The overall goals of these evaluation activities are to monitor our disclosure controls and procedures and to make modifications as necessary. We intend to maintain these disclosure controls and procedures, modifying them as circumstances warrant.

Based on that evaluation, our management, including the Chief Executive Officer and Chief Financial Officer, concluded that as of December 30, 2006 the Company s disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act, were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and the reported within the time periods specified in the SEC s rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, including our principal executive officer, as appropriate to allow timely decisions regarding required disclosures.

Management s Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Management assessed our internal control over financial reporting as of December 30, 2006, the end of our fiscal year. Management based its assessment on criteria established in ″Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management s assessment included evaluation of such elements as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment. This assessment is supported by testing and monitoring performed by our internal accounting and finance organization.

Based on our assessment, management has concluded that our internal control over financial reporting was effective as of December 30, 2006 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles. The results of management s assessment were reviewed with the Audit Committee.

Our independent registered public accounting firm, Deloitte & Touche LLP, has issued a report on management s assessment of our internal control over financial reporting, which is included in this Item 8 of this Annual Report on Form 10-K.

Changes to Internal Controls

As part of the implementation of section 404 of the Sarbanes Oxley Act of 2002, the Company instituted internal controls that were designed to detect errors. There have been no changes in our internal controls over financial reporting during the quarter ended December 30, 2006 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Inherent Limitations on Controls and Procedures

Our management, including the Chief Executive Officer and the Chief Financial Officer, does not expect that our disclosure controls and procedures and our internal controls will prevent all error and all fraud. A control system, no matter how well designed and operated, can only provide reasonable assurances that the objectives of the control system are met. The design of a control system reflects resource constraints; the benefits of controls must be considered relative to their costs. Because there are inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have

been or will be detected. As these inherent limitations are known features of the financial reporting process, it is possible to design into the process safeguards to reduce, though not eliminate, these risks. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns occur because of simple error or mistake. Controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events. While our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives, there can be no assurance that any design will succeed in achieving its stated goals under all future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with the policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

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We intend to review and evaluate the design and effectiveness of our disclosure controls and procedures on an ongoing basis and to improve our controls and procedures over time and to correct any deficiencies that we may discover in the future. While our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 30, 2006, the design of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act, was effective, future events affecting our business may cause us to significantly modify our disclosure controls and procedures.

Item 9B. Other Information

None.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance***

Certain information regarding our executive officers is included in Part I of this Annual Report on Form 10-K under the caption Our Executive Officers. All other information regarding directors, executive officers and corporate governance required by Item 10 is included herein by reference from the information under the captions Election of Directors, Section 16(a) Beneficial Ownership Reporting Compliance, Code of Ethics, and in other applicable sections in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2007 annual meeting of shareholders and is incorporated herein by reference.

Item 11. ***Executive Compensation***

The information required by Item 11 is included herein by reference from the information under the caption Executive Compensation in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2007 annual meeting of shareholders and is incorporated herein by reference.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholders Matters***

The information required by Item 12 is included herein by reference from the information under the caption Security Ownership of Certain Beneficial Owners and Management and Executive Compensation Plan Information in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2007 annual meeting of shareholders and is incorporated herein by reference.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence***

The information required by Item 13 is included herein in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2007 annual meeting of shareholders and is incorporated herein by reference.

Item 14. ***Principal Accounting Fees and Services***

The information required by Item 14 is included in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2007 annual meeting of shareholders and is incorporated herein by reference.

PART IV

Item 15. ***Exhibit and Financial Statement Schedules***

(a) List of documents filed as part of this report:

1. Financial Statements and Reports of Independent Registered Public Accounting Firm.

Reference is made to the Index to Financial Statements under Item 8 of Part II of this Annual Report on Form 10-K, where these documents are included.

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2. Financial Statement Schedules

Schedule II Valuation and Qualifying Accounts and Reserves for each of the three fiscal years ended December 30, 2006, December 31, 2005 and January 1, 2005.

Other financial statement schedules are not included either because they are not required or the information is otherwise shown in our audited consolidated financial statements or the notes thereto.

3. Exhibits

Reference is made to the Exhibit Index on page 75 of this annual report on Form 10-K, where these documents are included.

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THORATEC CORPORATION AND SUBSIDIARIES
SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
For Each of the Three Fiscal Years Ended December 30, 2006

	Balance Beginning of Year	Additions (charges to expense)	Deductions	Balance End of Year
		(in thousands)		
Year Ended December 30, 2006:				
Allowance for doubtful accounts	$ 634	$ 14	$(157)(1)	$ 491
Accrued product warranty	$1,073	$ 756	$(797)(2)	$1,032
Year Ended December 31, 2005:				
Allowance for doubtful accounts	$ 708	$ 96	$(170)(1)	$ 634
Accrued product warranty	$ 618	$ 772	$(317)(2)	$1,073
Year Ended January 1, 2005:				
Allowance for doubtful accounts	$ 486	$ 417	$(195)(1)	$ 708
Accrued product warranty	$ 829	$ 173	$(384)(2)	$ 618

(1) Accounts written off, net of recoveries.

(2) Warranty expenditures incurred.

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EXHIBIT INDEX

Exhibit Number	Exhibit
3.1	Thoratec s Articles of Incorporation, as amended.(1)
3.2	Thoratec s By-Laws, as amended February 25, 2005.(2)
4.1	Rights Agreement between Thoratec Corporation and Computershare Trust Company, Inc. as Rights Agent dated as of May 2, 2002.(3)
4.2	Indenture, dated as of May 24, 2004, by and between Thoratec Corporation and U.S. Bank, National Association, as Trustee. (4)
4.3	Form of Senior Subordinated Convertible Note due 2034.(5)
4.4	Pledge Agreement, dated as of May 24, 2004, between Thoratec Corporation and U.S. Bank, National Association, and Pledge Agreement Supplement, dated as of June 7, 2004.(4)
4.5	Control Agreement, dated as of May 24, 2004, between Thoratec Corporation and U.S. Bank, National Association, and Control Agreement Amendment, dated as of June 7, 2004.(4)
4.6	Registration Rights Agreement, dated May 24, 2004, by and among Thoratec Corporation and Merrill Lynch Pierce Fenner & Smith Incorporated as Initial Purchaser of the Senior Subordinated Convertible Notes due 2034. (4)
10.1	Intellectual Property Cross-license Agreement between Thermedics and the Thoratec Cardiosystems dated August 19, 1988.(6)
10.2	Form of Indemnification Agreement between Thoratec Cardiosystems and its officers and directors.(6)
10.3	Thoratec s 1993 Stock Option Plan.(7)
10.4	Agreement dated May 26, 1993, between The Polymer Technology Group. Incorporated and the Thoratec Cardiosystems.(8)
10.5	Thoratec s 1996 Stock Option Plan.(9)
10.6	Thoratec s 1996 Nonemployee Directors Stock Option Plan, as amended.(10)
10.7	Lease Agreement dated July 25, 1996, between Main Street Associates and Thoratec, as amended.(11)
10.8	First Amendment to Lease Agreement originally between Main Street Associates and Thoratec dated July 25, 1996.(12)
10.9	Second Amendment to Lease Agreement originally between Main Street Associates and Thoratec dated July 25, 1996.(13)
10.10	Thoratec s 1997 Stock Option Plan, as amended.(14)

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Exhibit Number	Exhibit
10.11	Amended and Restated Directors Stock Option Plan of Thoratec Cardiosystems.(15)
10.12	Amended and Restated Nonqualified Stock Option Plan of Thoratec Cardiosystems.(15)
10.13	Agreement and Plan of Merger by and among Thoratec, Lightning Acquisition Corporation, Thermo Cardiosystems Inc, and Thermo Electron Corporation dated October 3, 2000.(16)
10.14	Registration Rights Agreement by and between Thoratec and Thermo Electron dated October 3, 2000.(16)
10.15	Shareholder Agreement by and between Thoratec and Thermo Electron dated October 3, 2000.(16)
10.16	Lease agreement dated August 16, 1995, between International Technidyne Corporation and BHBMC, as amended.(17)
10.17	Amended and Restated Employment Agreement by and between Thoratec and D. Keith Grossman, dated August 15, 2005.(18)*
10.18	Thoratec s 2002 Employee Stock Purchase Plan.(19)
10.19	Thoratec s Deferred Compensation Plan effective as of January 1, 2004. (10)
10.20	Grantor Trust Agreement between Thoratec and Wachovia Bank, National Association effective as of November 21, 2003.(10)
10.21	Commercial Lease between International Technidyne Corporation and Roseville Properties Management Company dated September 26, 2003. (10)
10.22	Lease Agreement between International Technidyne Corporation and NJ Mortgage Association dated February 21, 2003. (21)
10.23	Description of the Executive Disability Income Protection Program.(20)
10.24	Employment Agreement by and between Thoratec and Jeffrey Nelson, dated August 15, 2005.(18)*
10.25	Employment Agreement by and between Thoratec and Lawrence Cohen, dated August 15, 2005.(18)*
10.26	Purchase and Sale Agreement and Escrow Instructions dated September 2, 2005, by and between Thoratec and Aegis I, LLC.(22)
10.27	Employment Agreement by and between Thoratec and Gerhard F. Burbach dated January 13, 2006.(23)*
10.28	Offer Letter Agreement by and between Thoratec and Cynthia Lucchese dated August 1, 2005. (24)*
10.29	

First Amendment to Employment Agreement by and between Thoratec and Gerhard F. Burbach, dated May 12, 2006. (25)*

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Exhibit Number	Exhibit
10.30	First Amendment to Offer Letter Agreement by and between Thoratec and Cynthia Lucchese, dated March 12, 2006. (25)*
10.31	Amended and restated Thoratec Corporation 2006 Incentive Stock Plan.(26)
10.32	Offer Letter Agreement by and between Thoratec and David V. Smith dated November 22, 2006.(27)*
10.33	Second Amendment to Offer Letter Agreement by and between Thoratec and Cynthia Lucchese, dated December 1, 2006.*
21	Subsidiaries of Thoratec.(17)
23.1	Consent of Independent Registered Public Accounting Firm Deloitte & Touche LLP.
24	Power of Attorney Reference is made to page 80 hereof.
31.1	Section 302 Certification of Chief Executive Officer
31.2	Section 302 Certification of Chief Financial Officer
32.1	Section 906 Certification of Chief Executive Officer
32.2	Section 906 Certification of Chief Financial Officer

(1) Filed as an Exhibit to Thoratec s Annual Report on Form 10-K for the fiscal year ended December 28, 2002 filed with the SEC on March 20, 2003 and incorporated herein by reference.

(2) Filed as an Exhibit to Thoratec s Form 8-K filed with the SEC on March 3, 2005.

(3) Filed as an Exhibit to Thoratec s Form 8-A12G filed with the SEC on May 3, 2002 (Registration No. 000-49798), and incorporated herein by reference.

(4) Filed as an Exhibit to Thoratec s Quarterly Report on Form 10-Q for the fiscal quarter ended July 3, 2004 filed with the SEC on August 12, 2004, and incorporated herein by reference.

(5) Included as an exhibit to Exhibit 4.2.

(6) Filed as an Exhibit to Thoratec Cardiosystems Registration Statement on Form S-1 (Registration No. 33-25144) and incorporated herein by reference.

(7) Filed as an Exhibit to Thoratec s Annual Report on Form 10-K for the fiscal

year ended January 1, 1994 filed with the SEC on March 22, 1994, and incorporated herein by reference.

(8) Filed as an Exhibit to Thoratec Cardiosystems Quarterly Report on Form 10-Q for the fiscal quarter ended July 3, 1993 and incorporated herein by reference.

(9) Filed as an Exhibit to Thoratec s Registration Statement on Form S-8 filed with the SEC on September 12, 1996, (Registration No. 333-11883) and incorporated herein by reference.

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(10) Filed as an Exhibit to Thoratec s Annual Report on Form 10-K for the fiscal year ended January 3, 2004 filed with the SEC on March 17, 2004 and incorporated herein by reference.

(11) Filed as an Exhibit to Thoratec s Quarterly Report on Form 10-Q for the fiscal quarter ended June 29, 1996, filed with the SEC on August 13, 1996, and incorporated herein by reference.

(12) Filed as an Exhibit to Thoratec s Quarterly Report on Form 10-Q for the fiscal quarter ended June 28, 1997, filed with the SEC on July 30, 1997, and incorporated herein by reference.

(13) Filed as an Exhibit to Thoratec s Quarterly Report on Form 10-Q for the fiscal quarter ended

September 27, 1997 filed with the SEC on November 12, 1997, and incorporated herein by reference.

(14) Filed as an Exhibit to Thoratec s Registration Statement on Form S-8 filed with the SEC on June 18, 2003 (Registration No. 333-106238), and incorporated herein by reference.

(15) Filed as an Exhibit to Thoratec Cardiosystems Quarterly Report on Form 10-Q for the fiscal quarter ended July 3, 1999 filed with the SEC on August 5, 1999, and incorporated herein by reference.

(16) Filed as an Annex to Thoratec s Registration Statement on Form S-4/A, filed with the SEC on December 29, 2000 (Registration No. 333-72128), and incorporated herein by reference.

(17) Filed as an Exhibit to Thoratec s Form 10-K405 filed with the SEC on March 15, 2002 (Registration No. 033-72502), and incorporated herein by reference.

(18) Filed as an Exhibit to Thoratec s Form 8-K filed with the SEC on August 19, 2005.

(19) Filed as an Exhibit to Thoratec s Form S-8 POS filed with the SEC on July 1, 2002 (Registration No. 333-90768), and incorporated herein by reference.

(20) Filed as an Exhibit to Thoratec s Annual Report on Form 10-K for the fiscal year ended January 1, 2005 filed with the SEC on March 16, 2005 and incorporated herein by reference.

(21) Filed as an Exhibit to Thoratec s Quarterly Report on Form 10-Q for the fiscal quarter

ended March 29, 2003 filed with the SEC on May 13, 2003, and incorporated herein by reference.

(22) Filed as an Exhibit to Thoratec s Form 8-K filed with the SEC on September 8, 2005.

(23) Filed as an Exhibit to Thoratec s Form 8-K filed with the SEC on January 18, 2006.

(24) Filed as an Exhibit to Thoratec s Annual Report on Form 10-K for the fiscal year ended December 31, 2005 filed with the SEC on March 16, 2006 and incorporated herein by reference.

(25) Filed as an Exhibit to Thoratec s Form 8-K filed with the SEC on May 16, 2006.

(26) Filed as an Exhibit to Thoratec s Form 8-K filed with the SEC on June 1, 2006.

(27) Filed as an Exhibit to Thoratec s form 8-K filed with the SEC on December 4, 2006.

* Indicates a management contract or compensatory plan.

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SIGNATURES

In accordance with Section 13 or Section 15(d) of the Exchange Act, as amended, the Registrant has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on this 30th day of March 2007.

THORATEC CORPORATION

By: /s/ Gerhard F. Burbach
Gerhard F. Burbach
President and Chief Executive Officer

Date: March 30, 2007

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POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Gerhard F. Burbach and David Lehman, and each of them, his true and lawful attorney-in-fact, with full power of substitution and resubstitution, to act for him and in his name, place and stead, in any and all capacities to sign any and all amendments to this annual report on Form 10-K and to file the same, with all exhibits thereto, and all documents in connection therewith, 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 which they, or any of them, may deem necessary or advisable to be done in connection with this annual report 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 any substitute or substitutes for any or all of them, may lawfully do or cause to be done by virtue hereof.

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the Thoratec Corporation and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Gerhard F. Burbach Gerhard F. Burbach	Chief Executive Officer, President and Director	March 30, 2007
/s/ David V. Smith David V. Smith	Executive Vice President and Chief Financial Officer	March 30, 2007
/s/ J. Donald Hill J. Donald Hill	Director and Chairman of the Board of Directors	March 30, 2007
/s/ Howard E. Chase Howard E. Chase	Director	March 30, 2007
/s/ J. Daniel Cole J. Daniel Cole	Director	March 30, 2007
/s/ Neil F. Dimick Neil F. Dimick	Director	March 30, 2007
/s/ D. Keith Grossman D. Keith Grossman	Director	March 30, 2007
/s/ William M. Hitchcock William M. Hitchcock	Director	March 30, 2007
/s/ George W. Holbrook, Jr.	Director	March 30, 2007

George W. Holbrook, Jr.		
/s/ Daniel M. Mulvena	Director	March 30, 2007
Daniel M. Mulvena		