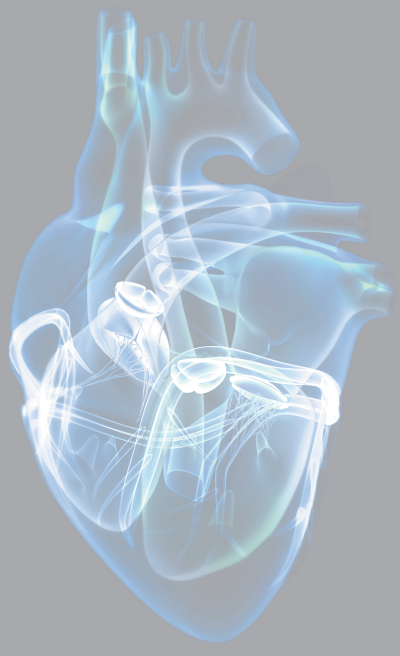
2012 ANNUAL REPORT



THORATEC® for Life
CORPORATION

Tomorrow depends on the decisions we make today.

THORATEC CORPORATION 2012 ANNUAL REPORT TOMORROW DEPENDS ON THE DECISIONS WE MAKE TODAY.

HeartMate II® restores the activity level of patients and improves their quality of life.

+94%

Over 94% of HeartMate II patients at six months completed the 6-minute walk test as compared to 16% of patients before implantation.[1]

(1) John, Naka, Smedira, et al. Ann Thorac Surg 2011;92:1406–13

TESTED

+250

The most widely used and studied LVAD worldwide. There are over 250 published, peer reviewed articles referencing the performance of HeartMate II.[2]

PROVEN

+5,500

Currently there are more than 5,500 ongoing patients. Nearly 1,000 of these patients have been supported more than 2 years with HeartMate II.[2]

RELIABLE

+13,000

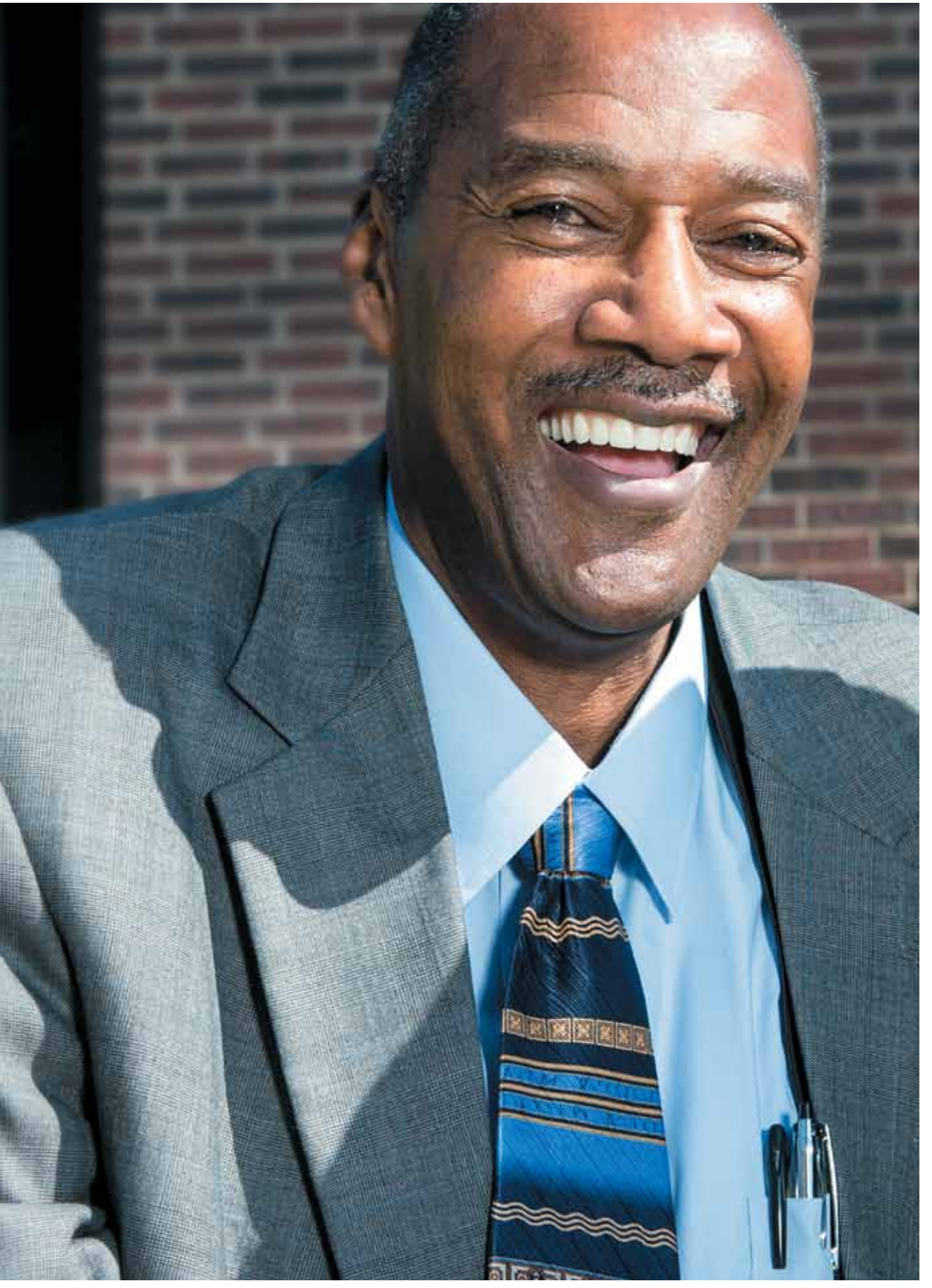
HeartMate II has been implanted in more than 13,000 people worldwide and is the first and only continuous flow LVAD approved by FDA for both Bridge-to-Transplantation and Destination Therapy, also known as long-term support.[2]

(2) Data on file as of January 2013, Pleasanton, CA, Thoratec Corp.

KRISTI MARDIS & TONY McNATT


As recipients of the HeartMate II®, Tony and I are on this journey together...
KRISTI MARDIS
HEARTMATE II® RECIPIENT
BRIDGE-TO-TRANSPLANTATION
&
TONY McNATT
HEARTMATE II® RECIPIENT
BRIDGE-TO-TRANSPLANTATION
and we are thriving!
Thank you Thoratec.


I'm truly grateful for what I have today — the opportunity to continue life with good quality.
REVEREND WILLIAM FIELDS
HEARTMATE II® RECIPIENT
DESTINATION THERAPY
My decision was to get the device and to keep it for the rest of my life.

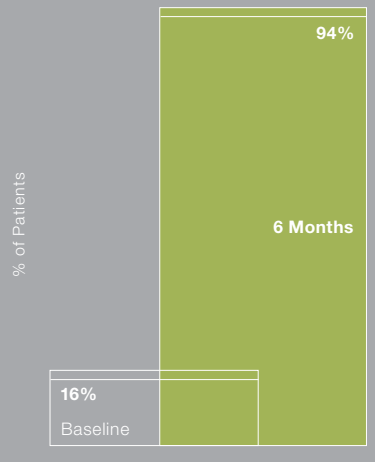


6 months.
6 minutes.
345 meters.

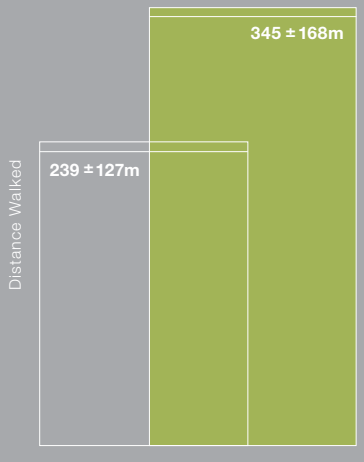
+94%

BRIDGE-TO-TRANSPLANTATION / 6-MINUTE WALK TEST[1]

- Only 16% of patients were capable of completing the test prior to HeartMate II implantation
- 94% of HeartMate II recipients were able to complete the test at six months

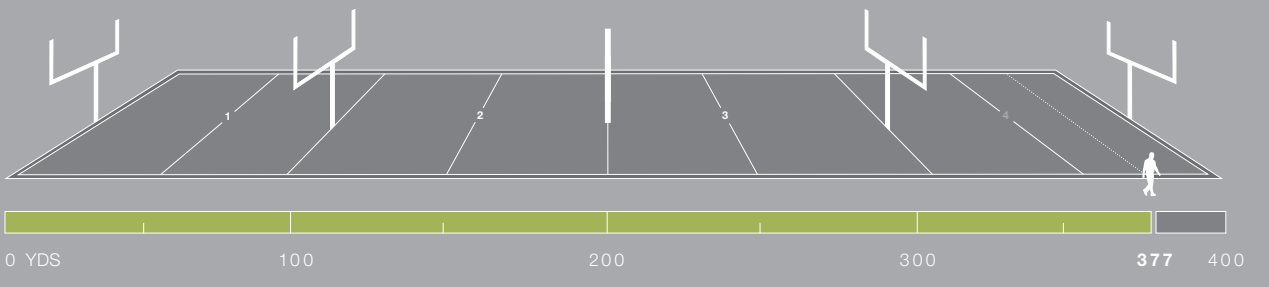


% of Patients Completing the 6-Minute Walk Test



Average Distance Walked in 6 Minutes

At 6 months, patients are able to walk *(on average)* 377 yards—*the length of almost 4 football fields*—in 6 minutes.[1]



(1) John, Naka, Smedira, et al. Ann Thorac Surg 2011;92:1406–13

DEAR SHAREHOLDERS,

A thirty-five year commitment to life.

2012 marked another excellent year for Thoratec, as we continued to advance the field of mechanical circulatory support (MCS) to serve patients with both chronic and acute heart failure. First and foremost, we measure our success by the impact our products have on individual lives, and I am proud to report that more than 13,000 patients have been implanted with HeartMate II®, our flagship product serving patients with chronic heart failure. Likewise, more than 10,000 patients have been implanted with CentriMag® and PediMag®, our acute support product line. We truly believe that these are the most proven and dependable devices of their kind, and their impact on the lives of patients continues to grow.

Thoratec's success in 2012 was reflected in our strong financial results. Revenues grew by 16% to $491.7 million, driven by sales of both HeartMate II and CentriMag. HeartMate II revenues grew 19%, while the CentriMag product line grew 39%, or approximately 15% excluding the impact of the Levitronix Medical acquisition. We generated strong performance in both the United States and internationally, as revenues grew 15% and 21%, respectively, in those regions. We continued to increase our investment in both research and development and market development initiatives during 2012, while still recording high levels of profitability. Net income on a GAAP basis was $56.2 million, or $0.94 per diluted share, and on a non-GAAP basis net income was $109.2 million, or $1.83 per diluted share.

THORATEC® *for Life*

The logo above, "Thoratec for Life," captures the essence of our commitment to our customers and to patients. It is more than a slogan—it is our mission. It highlights the life-saving and life-changing nature of our work, and it represents the foundation for everything we do.

Our mission to aid heart failure patients in living better, fuller and longer lives began more than 35 years ago. Since then, we have developed the broadest range of MCS devices to treat a wide range of patients and address significant clinical needs. Additionally, we have built a robust support infrastructure to provide unparalleled service to the clinicians and institutions who utilize our products. Moreover, we continue to make significant investments toward further innovation within the field of MCS. In 2012, we made strong progress in all of these efforts.

GIVING LIVES BACK TODAY

Thoratec offers a broad portfolio of MCS products to meet a variety of clinical needs. Our portfolio includes HeartMate II, the world's most extensively studied and utilized heart pump for chronic heart failure patients. HeartMate II has been evaluated in more than 250 published, peer-reviewed journal articles, providing a broad-based foundation of clinical evidence. Based on proven clinical results, HeartMate II has enjoyed significant commercial adoption, and in 2012 we shipped 3,858 HeartMate II pumps to customers around the world, a 23% increase compared to 2011. In the United States, HeartMate II is approved for both Bridge-to-Transplantation (BTT) and Destination Therapy (DT). The DT indication provides patients who are ineligible for heart transplant with a long-term circulatory support therapy, and in 2012, we estimate that close to 50% of new HeartMate II patients received the device under this indication. In addition to HeartMate II, Thoratec's portfolio includes PVAD™, designed for short-to-mid-term support for both the right and left ventricles of the heart, as well as CentriMag and PediMag, which provide short-term hemodynamic stabilization for both adult and pediatric patients.

In 2012, we continued to generate clinical data to support expanded and optimized utilization of our products. For HeartMate II in particular, we ramped enrollment in three critical post-market studies (ROADMAP™, TRACE™, and SSI™), and we plan to complete enrollment for all three of these studies during 2013. ROADMAP is designed to evaluate HeartMate II as a Destination Therapy device for a patient population that is slightly less sick than the typical LVAD recipient in the current commercial environment. The study involves ambulatory advanced heart failure patients who are not yet dependent on intravenous inotropic support, and the primary objective is to evaluate and compare the effectiveness of HeartMate II support versus optimal medical management. Meanwhile, TRACE and SSI are intended to provide information on potential methods of optimizing patient management with respect to anti-coagulation therapy and driveline implantation techniques. The goal of these studies is to provide clinicians with additional data to facilitate reductions of adverse events such as bleeding and infection.

In addition to these post-market studies, we were pleased to receive approval from the FDA in late 2012 to proceed with the REVIVE-IT trial utilizing HeartMate II. REVIVE-IT is a prospective, randomized, controlled trial, designed to enroll up to 100 non-transplant-eligible patients in Class III heart failure, predominantly outside the current approved indication for HeartMate II support. Patients will receive either HeartMate II or optimal medical management and will be followed for two years. We are collaborating with the University of Michigan, University of Pittsburgh and other preeminent VAD programs across the country on this pioneering study, and we look forward to the commencement of enrollment around the middle part of 2013.

As part of our mission, we are also seeking to expand the utilization of our products at more institutions and in more regions around the world. During 2012, 30 new hospitals adopted HeartMate II, bringing the total number of HeartMate II centers worldwide to 323. In the United States, we saw strong growth at hospitals that do not have transplant programs, which we refer to as open heart centers. HeartMate II volume at these open heart centers grew over 50% during 2012, and these centers now represent approximately 20% of total HeartMate II volume in the U.S. Internationally, we continue to introduce our technologies to new centers and new countries, and this geographic expansion helped generate HeartMate II volume growth of 30% outside the U.S. last year. In 2013, we plan to enter another important new market, Japan. In December 2012, we announced approval from Japan's Ministry of Health, Labour and Welfare to market HeartMate II as a Bridge-to-Transplantation therapy for patients suffering from advanced heart failure. We anticipate receiving reimbursement approval in Japan toward the end of the first quarter, at which point we will initiate our commercial launch.

LIFE-RESTORING MCS EXPERTISE

In addition to providing technologies of the highest quality, Thoratec strives to deliver an unparalleled level of support to meet the critical needs of VAD programs. We refer to this suite of services and resources as Thoratec 360™, which encompasses our effort to assist institutions in improving patient outcomes as well as achieving excellence and growth in their VAD programs. Thoratec 360 includes our "Always On™" clinical and technical support, programs and workgroups to improve clinical outcomes, reimbursement education and support, services to improve operational efficiency for VAD programs, as well as training and education efforts targeted at patients, caregivers, referring physicians, and the broader community.

During 2012, we made impressive progress with a number of these initiatives. For example, we ramped our Shared Care™ program, which is designed to facilitate the ongoing management of HeartMate II patients by their local cardiologist or community hospital, to a total of approximately 50 sites. The goal of Shared Care is to allow patients to seek follow-up care from their local community clinicians and to foster a close partnership between implanting centers and referring clinicians. Shared Care is especially important for patients who live outside of metropolitans areas and might have a long drive to a HeartMate II implanting center.

We also launched two new initiatives in 2012 designed to improve VAD program efficiency. First, we introduced Thoratec Connect™, which is a unique Internet-based MCS program management system designed to meet administrative needs such as implant and equipment tracking for Thoratec products, and product incident reporting and follow-up. The aim of Thoratec Connect is to improve the efficiency of patient management, in order to allow clinicians to focus more of their time on patient care. Additionally, we launched Continuum™, a service offering in which we manage the ongoing provision of driveline dressing supplies and replacement accessories for patients living on HeartMate II support after being discharged from the hospital. These activities, which involve communication with the patient and his or her insurance provider, as well as billing the insurance provider, are time-consuming and labor-intensive. Continuum provides hospitals with a resource to outsource these responsibilities, once again allowing clinicians to dedicate more time to direct interaction with patients.

All of these Thoratec 360 initiatives serve to raise the level of awareness and knowledge of LVAD therapy, empower patients and caregivers, and support HeartMate II implanting centers in growing their programs and delivering excellent patient care.

INNOVATION FOR LIFE

As we look ahead, Thoratec is absolutely committed to advancing novel, next-generation MCS technologies to further improve patient care and to strengthen our market leadership position. In 2012, we invested almost $90 million in research and development activities, or approximately 18% of our total revenues, representing continued growth versus prior periods and demonstrating our sustained commitment to the future of MCS therapy. We made encouraging progress on a number of key programs in our product development pipeline during 2012, and we anticipate achieving a number of important milestones in 2013.

As part of our overall product strategy, we have continued to advance our existing pump platforms. For example, we introduced a new system console for our CentriMag product line during 2012, and we are now planning to explore evolution of this product family to address the ECMO market. Likewise, for our HeartMate II system, we advanced the Pocket Controller™ into a limited market evaluation in Europe during late 2012, and we are planning a full commercial launch for the first half of 2013 pending regulatory approvals. The Pocket Controller is a small, patient-friendly device that should provide meaningful quality-of-life and safety advantages.

Additionally, we made excellent progress during 2012 with two next-generation pump platforms: HeartMate III™ and HeartMate PHP™. HeartMate III would be the first truly compact, fully magnetically levitated chronic VAD on the market. The expected design benefits of our full magnetic levitation technology are numerous, including wider blood flow gaps with improved blood handling characteristics, as well as the ability to generate an artificial pulse, all of which are expected to enable HeartMate III to deliver benefits in a number of key areas, including the reduction of stroke, bleeding, thromboembolic events, and other complications. Meanwhile, HeartMate PHP addresses an entirely new market opportunity for Thoratec, with the potential to provide acute, catheter-based support for a number of underserved patient populations worldwide, including high-risk PCI, cardiogenic shock, and acutely decompensated heart failure. The key point of differentiation for PHP is expected to be its ability to generate four to five liters of blood flow over the full cardiac cycle, significantly more than other percutaneous options. For both HeartMate III and PHP, we remain on track to begin pivotal clinical trials in Europe in the middle part of 2013.

Lastly, we continued work on a fully implantable VAD system, a technology that could provide patients and clinicians with game-changing advantages related to improved quality of life and reduced infection risk. Through 2013, we will continue to advance the individual component technologies of this program, including the implantable battery, controller, and wireless energy coils, and we plan to integrate them into a complete system by the end of the year.

2012 was another successful year for Thoratec, and in the years to come, we plan to continue to extend the benefits of our life-restoring therapies to additional patients in need, drive market growth, advance our leadership position, and bring exciting new technologies to market. We look forward to reporting to you on our progress.

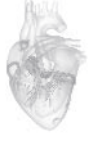
Sincerely,

GERHARD F. BURBACH
President, Chief Executive Officer and Director

2012 FORM 10-K

THORATEC® for Life
CORPORATION

Thoratec Corporation Form 10-K



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark one)

☒ **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 29, 2012

☐ **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 ☒ No ☐

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 ☐ No ☒

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 ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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 ☐.

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

Large accelerated filer ☒	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller Reporting Company ☐

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

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 29, 2012, the last business day of the Registrant's second fiscal quarter, was $1,958,277,875.

As of February 8, 2013, the Registrant had 57,605,296 shares of common stock outstanding.

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DOCUMENTS INCORPORATED BY REFERENCE

Designated portions of Thoratec's definitive proxy statement for its 2013 annual meeting of shareholders are incorporated by reference into Part III of this Form 10-K.

PART I

Item 1: ***Business***

OVERVIEW

Thoratec Corporation ("we," "our," "us," or the "Company") is a world leader in mechanical circulatory support with a product portfolio to treat the full range of clinical needs for advanced heart failure patients. We develop, manufacture and market proprietary medical devices used for circulatory support. Heart failure 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 COMPANY AND BACKGROUND

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 principal executive offices are located at 6035 Stoneridge Drive, Pleasanton, California, 94588. The telephone number at that address is (925) 847-8600. We make available, free of charge on our website located at www.thoratec.com, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after filing such reports with the Securities and Exchange Commission. Our code of ethics, corporate governance guidelines, company compliance program, audit committee charter, corporate governance and nominating committee charter, compensation committee charter, and audit committee complaint procedures are also posted on our website and are each available in print to any shareholder upon request by writing to: Thoratec Corporation, Investor Relations, 6035 Stoneridge Drive, Pleasanton, California, 94588. The contents of our website are not incorporated by reference into this report.

OUR PRODUCTS

We develop, manufacture and market proprietary medical devices used for mechanical circulatory support ("MCS") for the treatment of heart failure ("HF") patients. For chronic circulatory support for HF patients, our primary product lines are our ventricular assist devices ("VADs"): HeartMate Left Ventricular Assist System ("HeartMate XVE"), HeartMate II Left Ventricular Assist System ("HeartMate II"), Thoratec Paracorporeal Ventricular Assist Device ("PVAD"), and Thoratec Implantable Ventricular Assist Device ("IVAD"). We refer to HeartMate XVE and HeartMate II collectively as the "HeartMate product line" and PVAD and IVAD collectively as the "Thoratec product line." For acute circulatory support, our product lines are CentriMag Acute Circulatory System ("CentriMag") and for pediatric patients PediMag/PediVAS Acute Circulatory System ("PediMag/PediVAS"). HeartMate XVE, HeartMate II, PVAD, IVAD, CentriMag and PediMag/PediVAS are approved by the U.S. Food and Drug Administration ("FDA"), and have received Conformité Européene ("CE") Mark approval in Europe.

MCS devices supplement the pumping function of the heart in patients with 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 MCS devices. Some of our devices can also provide support for the right side of the heart.

Our product portfolio of implantable and external MCS devices is described below.

HeartMate II

HeartMate II is an implantable, electrically powered, continuous flow, left ventricular assist device ("LVAD") consisting of a rotary blood pump designed to provide intermediate and long-term MCS. HeartMate II is designed to improve survival and quality of life for a broad range of advanced HF patients. Significantly smaller than HeartMate XVE and with only one moving part, HeartMate II is simpler and designed to operate more quietly than pulsatile devices.

HeartMate II received FDA approval in April 2008 for bridge-to-transplantation ("BTT") and received FDA approval for use in HF patients who are not eligible for heart transplantation ("Destination Therapy" or "DT") in January

2010. In November 2005, HeartMate II received CE Mark approval. HeartMate II is the most widely used and standard LVAD.

HeartMate XVE

HeartMate XVE is an implantable, pulsatile, left ventricular assist device for intermediate and longer-term MCS. Patients with a HeartMate XVE do not require anticoagulation drugs, other than aspirin, because of the product's incorporation of proprietary textured surfaces and tissue valves. We discontinued the sale of HeartMate XVE at the end of fiscal 2011.

HeartMate XVE received FDA approval for BTT in December 2001 and for DT in April 2003. In June 2003, HeartMate XVE received CE Mark approval.

CentriMag

CentriMag is an extracorporeal full-flow acute surgical support platform incorporating a polycarbonate pump, based on magnetically levitated bearingless motor technology. CentriMag is cleared by the FDA for use up to six hours in patients requiring short-term extracorporeal circulatory support during cardiac surgery. Additionally, CentriMag is approved under an FDA humanitarian device exemption ("HDE") to be used as a right ventricular assist device for periods of support up to thirty days in patients in cardiogenic shock due to acute right ventricular failure. We have an ongoing study to evaluate the effectiveness of the CentriMag for periods of support up to thirty days. CentriMag has CE Mark approval to provide support for up to thirty days for both cardiac and respiratory failure.

On August 3, 2011, we completed the acquisition of the medical business of Levitronix LLC ("Levitronix Medical"). Prior to the acquisition, we provided distribution and clinical support to Levitronix Medical in the U.S. for CentriMag under an agreement that would have expired at the end of 2011.

PediMag/PediVAS

PediMag and PediVAS are identical, extracorporeal full-flow acute surgical support platforms incorporating a polycarbonate pump, based on magnetically levitated bearingless motor technology, designed to provide acute surgical support to pediatric patients. The brand names differ according to indication for use, duration of support, and regulatory approval. PediMag is cleared by the FDA for use, in conjunction with the CentriMag console and motor, for support periods of up to six hours. Outside the U.S., the device is branded as PediVAS. This device has CE Mark to provide support for up to 30 days for both cardiac and respiratory failure.

PVAD

PVAD is an external, pulsatile, VAD, FDA approved for BTT, including home discharge and post-cardiotomy myocardial recovery and provides left, right, and biventricular MCS. PVAD is a paracorporeal device that is less invasive than implantable VADs since only the cannula is implanted. The paracorporeal nature of PVAD provides several benefits including shorter implantation times (approximately two hours) and the ability to use the device in smaller patients.

A pneumatic power source drives PVAD. It is designed for short-to-intermediate duration for post-cardiotomy myocardial recovery following cardiac surgery and BTT. PVAD and IVAD, described below, offer left, right or biventricular support for use for BTT. This characteristic is significant because the vast majority of BTT patients treated with PVAD and IVAD require right as well as left-side ventricular assistance. PVAD and IVAD are also the only devices approved for both BTT and recovery following cardiac surgery. PVAD incorporates our proprietary biomaterial, Thoralon, which has excellent tissue and blood compatibility and is resistant to blood clots.

PVAD received FDA approval for BTT in December 1995 and for recovery (post-cardiotomy) in May 1998. In June 1998, PVAD received CE Mark approval, allowing for its commercial sale in Europe.

IVAD

IVAD is an implantable, pulsatile, VAD, FDA approved for BTT, including home discharge, and post-cardiotomy myocardial recovery and provides left, right or biventricular MCS. IVAD maintains the same blood flow path, valves and

blood pumping mechanism as PVAD, but has an outer housing made of a titanium alloy that makes it suitable for implantation.

IVAD received FDA approval for BTT and recovery (post-cardiotomy) in August 2004. In June 2003, the IVAD received CE Mark approval, allowing for its commercial sale in Europe.

DISCONTINUED OPERATIONS

On November 4, 2010, we sold our wholly owned subsidiary, International Technidyne Corporation ("ITC"), to ITC Nexus Holding Company, Inc. ("Nexus"). As a result, ITC is presented as discontinued operations in our consolidated financial statements.

PRODUCT SEGMENTS

Following the sale of ITC in 2010, the Company has one operating segment (Cardiovascular group). This segment is organized and operates to develop and manufacture mechanical circulatory products to support the cardiovascular systems of humans and to provide product-related services. Information concerning revenues set forth in Note 13 in the Notes to Consolidated Financial Statements, which is included elsewhere in this Annual Report on Form 10-K.

OUR MARKETS

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 American Heart Association, 6.6 million people suffer from HF in the U.S. and approximately 600,000 new cases are diagnosed each year. While the number of treatment options for earlier stage HF has increased in recent years, pharmacologic therapies remain the most widely used approach for treatment of HF. These drug therapies include angiotensin-converting enzyme ("ACE") inhibitors, anti-coagulants and beta-blockers, which facilitate blood flow, thin the blood or help the heart work in a more efficient manner. In addition to the use of VADs, other procedures addressing HF 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. 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 approximately 2,169 hearts became available for transplant in the U.S. during the twelve months reported to December 2012, the most recent period for which data is available. At February 12, 2013, approximately 3,423 patients were on the U.S. national transplant waiting list, and we believe a comparable number of patients are currently waiting in each of the U.S. and Europe. The median wait time 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: for DT and as a BTT. In addition to the chronic HF markets, MCS devices are also approved for use for acute HF following and during cardiac surgery. All four indications are summarized below.

Destination Therapy

On January 20, 2010, we received approval to market HeartMate II for DT in patients with New York Heart Association Class III B and IV end-stage left ventricular failure who have received optimal medical therapy for at least forty-five of the last sixty days, and who are not candidates for cardiac transplantation. In 2012, we completed the FDA-required post-market study of 247 patients who received the HeartMate II for DT.

The National Institute for Health estimated that the DT application represents a market opportunity of 50,000 to 100,000 patients in the U.S. For these late-stage HF patients, drug therapy is currently the only other treatment available. With drug therapy, the two-year survival rate for these patients is approximately 8%. We believe that the success in transitioning this market from maximum drug therapy to VADs is partially dependent on the development of the market for our HeartMate product line.

Bridge-to-Transplantation

VADs provide additional cardiac support for patients with late-stage HF waiting for a donor heart. Approximately 40%-50% of the patients on the waiting list for a heart transplant in the U.S. receive a VAD. We believe that the percentage of bridge-to-transplant patients will continue to increase as surgeons' level of comfort with the technology increases, particularly for longer-term support cases. We currently have three devices that are commercially marketed and approved in the U.S. for BTT support in adults.

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.

Cardiac Surgery Support

In addition to the longer term mechanical circulatory support indications, the CentriMag is approved to provide MCS for periods appropriate to cardiopulmonary bypass and for circulatory support when complete cardiopulmonary bypass is not necessary, for example during valvuloplasty, mitral valve reoperation, surgery of the vena cava or aorta, or liver transplants.

OUR STRATEGY

Our strategy is to maintain and expand our leadership position through execution of the following market and product development initiatives:

Expand the utilization of MCS therapy worldwide in patients with advanced heart failure

- ***Focus on and partner with leading heart centers.*** We have developed long-standing relationships with leading cardiovascular surgeons, heart failure cardiologists and heart centers worldwide. 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 continue our investment in building these relationships through cardiology education outreach programs. Our Market Development Managers work in partnership with our VAD centers to increase the awareness of MCS therapy in the cardiology community.

- ***Clinician education and outreach.*** We continue to expand awareness of MCS through education and outreach programs, both at implanting centers and within the referring cardiology community. We are building upon our existing relationships with cardiac surgeons and heart failure cardiologists in both transplant and open heart centers and using our existing sales channels to gain acceptance and adoption of our products in the major hospitals that perform open heart surgery. Additionally, we are educating community cardiologists and other potential referring clinicians about the benefits of MCS through our team of over 40 Market Development Managers in the U.S. as well as through clinical symposia, on-line education programs, and other outreach efforts.

- ***Center expansion.*** We ended 2012 with 323 HeartMate II centers globally, including 164 in the U.S. and 159 internationally, an increase of 30 centers during the year. In addition, there are now 118 U.S. centers with Joint Commission certification for reimbursement for DT.

- ***Geographic expansion.*** We are focused on increased worldwide adoption of MCS by developing MCS therapy in important emerging markets through obtaining regulatory approval, developing centers of excellence, and increasing awareness.

- ***Patient education and awareness.*** We also continue to expand awareness and education for patients and their care givers about the benefits of MCS therapy that include improved survival and quality of life.

Offer a broad range of products. We currently offer the widest range of MCS devices to cover indications for use ranging from acute to long-term support. We believe that the breadth of our product offering represents an important competitive advantage because it allows us to address the various preferences of clinicians, the 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.

Develop and obtain approval for new products and new indications for our products. Our product pipeline includes new technologies to augment the performance and ease of use of the HeartMate II system, cross platform technologies such as a fully implantable system, and next-generation pumps.

As part of our ongoing evolution of the HeartMate product line, in 2009 we launched our external peripherals, Go Gear, including new batteries, charger and power module. That improved quality of life to patients by offering them additional freedom and mobility. We also launched sealed inflow and outflow grafts for HeartMate II during 2011, which improved ease of implant. Additionally, during 2013, we plan to launch the Pocket Controller for the HeartMate II system. This device is designed to be smaller, lighter, and easier to use than previous controllers, and it incorporates a backup battery for enhanced patient safety.

Our cross platform technologies in development include remote monitoring, a fully implantable system and improved surgical and automated anastomotic tools. We have not yet entered human clinical testing with these cross platform technologies.

We also continue to invest in next-generation pump platforms, including HeartMate III, Percutaneous Heart Pump ("PHP"), and HeartMate X. HeartMate III is a fully magnetically levitated, centrifugal, continuous flow pump. The full magnetic levitation allows for wide blood gaps and pulsatility, which we believe will result in a lower rate of adverse events. We are also developing the PHP, which is a catheter based axial flow heart pump for application in an unstable HF patient population. The device features a collapsible elastomeric impeller and nitinol cannula that expand to nearly double its size upon insertion. PHP is designed to deliver four to five liters per minute of average blood flow. Lastly, we are developing a miniaturized pump called HeartMate X. The HeartMate III LVAS is designed to remove the external driveline continuing to improve a patient's quality of life.

Increase the cost effectiveness of the therapies that employ our products. While Medicare data indicates the cost of implanting a VAD for Destination Therapy is tracking similarly to that of a heart, liver or other major organ transplant, cost remains a concern for our customers. We work closely with VAD centers to continue to improve patient selection, reduce adverse events, and enhance the efficiency of follow-up care, which we believe will ultimately improve the cost effectiveness of this therapy. We also are expanding our market education and training programs, and will continue to make improvements that enhance the performance and cost effectiveness of our products.

Increase our market presence through strategic alliances, joint ventures and acquisitions. In addition to increasing our presence in heart failure and other cardiovascular disease markets through internal growth, we continue to evaluate strategic alliances, joint ventures, acquisitions and related business development opportunities. For instance, we acquired the intellectual property assets of PHP from Getinge AB in the first quarter of 2010 and Levitronix Medical in the third quarter of 2011.

SALES AND MARKETING

We have recruited and trained experienced cardiovascular sales specialists who sell our circulatory support systems throughout the world. Our sales force is complemented by direct clinical specialists and Market Development Managers. The clinical specialists conduct clinical educational seminars, assist with VAD implants and resolve clinical questions or issues.

Our sales and marketing initiatives include education seminars, symposia, journal advertisements, and direct consumers marketing, all common initiatives in the cardiovascular device market. We partner with universities, experienced clinicians and opinion leaders to assist with expanding clinical educational needs. Our Market Development Managers work with our leading VAD centers to generate referrals through increasing awareness in the cardiology community regarding MCS. In addition to our direct selling efforts, we have a network of international distributors who cover other geographic markets.

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. 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 twenty-four hour access to clinically trained personnel. In addition, our sales force helps customers understand and manage reimbursement from third-party payors. We believe that these VAD-related services are an important part of the value that we provide to hospitals and patients.

COMPETITION

Competition from medical device companies and medical device divisions of healthcare companies, pharmaceutical companies and gene- and cell-based therapies is intense and is expected to increase. The vast majority of VAD-eligible patients still receive pharmacological treatment instead of a VAD. We therefore continue to expect new competitors both from the pharmacological and the medical device space. Among the medical device competitors are Terumo Heart, Inc., HeartWare International Inc., AbioMed, Inc., Jarvik Heart, Inc., MicroMed Technology, Inc., SynCardia Systems, Inc., CircuLite, Aachen Innovative Solutions GmbH, Maquet Cardiovascular, LLC (a division of Getinge AB), and Berlin Heart GmbH.

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, provide high-quality, ongoing support, and manufacture and sell commercial quantities of our products.

PATENTS AND PROPRIETARY RIGHTS

We seek to protect our technology and intellectual property rights through obtaining and maintaining patent, trademark, copyright and trade secret protection.

We own, or have exclusive rights to, various U.S. and foreign patents. U.S. patents are typically granted for a term of about twenty years from the date a patent application is filed. The remaining durations on our patents range from less than one year to up to twenty years. The actual protection afforded by a foreign patent, which can vary from country to country, depends upon the type of patent, the scope of its coverage and the availability of legal remedies in the country. In those instances where we have acquired technology from third parties, we have sought to obtain rights to the technology through the acquisition of underlying patents or licenses.

Our patents and patent applications relate to a number of important aspects of our technology. We intend to continue to file additional patent applications both in the U.S. and in foreign jurisdictions to seek protection for our technology.

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

While we believe design, development, clinical performance and regulatory aspects of the medical device business represent the principal barriers to entry, we also recognize that our patents and license rights may make it more difficult for others to market products similar to those we manufacture and market. Despite our patents, license 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 position*" 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 U.S. 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.

FDA 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 ("FDCA") and its regulations. Our MCS systems are regulated as medical devices. To obtain FDA approval to market MCS systems similar to those under development, the FDA requires proof of safety and efficacy in human clinical trials performed under an Investigational Device Exemption ("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. Clinical trials are subject to central registration requirements on www.clinicaltrials.gov (none of the information available at this website is, or should be deemed to be, incorporated by reference into this Annual Report on Form 10-K). The results obtained from these trials, if satisfactory, are accumulated and submitted to the FDA in support of a premarket approval ("PMA") application, a PMA Supplement or a 510(k) premarket notification. There are substantial user fees that must be paid upon submission of the PMA application, PMA Supplement or 510(k) premarket notification 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. For high risk devices such as our MCS systems, the FDA may assemble an expert scientific advisory panel to review the clinical trial data submitted in a PMA before making its decision about whether the device is safe and effective and/or whether to approve the PMA.

By regulation, the FDA has 180 days to review a PMA application, during which time an FDA advisory committee of outside experts may be required to 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 eighteen months or longer, and many devices are never cleared for marketing. This is a lengthy and expensive process and there can be no assurance that FDA approval will be obtained.

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.

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. 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) premarket notification 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.

On October 26, 2002, the FDA signed into law The Medical Device User Fee and Modernization Act ("MDUFMA") of 2002. On September 28, 2007, MDUFMA was reauthorized for fiscal years 2008-2012, and in October 2012, MDUFMA was reauthorized for fiscal years 2012-2017. This law amends the FDCA 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 ("QSR"). The Medical Device Reporting ("MDR") regulations require that we report to the FDA any incident in which our products may have caused or contributed to a death or serious injury or in which our product malfunctioned and, if the malfunction were to recur, would likely cause or contribute to death or serious injury. Furthermore, the FDA may at any time inspect our facilities to determine whether we have adequate compliance with FDA regulations, including the QSR, which requires manufacturers to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process.

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.

Healthcare Regulation

Our business is subject to extensive federal and state healthcare regulation. This includes the federal Anti-Kickback Law and similar state anti-kickback laws, the federal False Claims Act, the Physician Payment Sunshine Act, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), as amended by the Health Information Technology for Economic and Clinical Health ("HITECH") Act of 2009, and similar state laws addressing privacy and security. Although we believe that our operations materially comply with the laws governing our industry, it is possible that non-compliance with existing laws or the adoption of new laws or interpretations of existing laws could adversely affect our financial performance.

Fraud and Abuse Laws

The healthcare industry is subject to extensive federal and state regulation. In particular, the federal Anti-Kickback Law prohibits persons from knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce either the referral of an individual, or the furnishing, recommending or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. The definition of "remuneration" has been broadly interpreted to include anything of value, including for example gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payments, ownership interests, and providing anything at less than its fair market value. In addition, recent health care reform legislation has strengthened these laws. For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, collectively, the PPACA, among other things, amends the intent requirement of the federal anti-kickback and criminal health care fraud statutes; a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the false claims statutes. The penalties for violating the Anti-Kickback Law can be severe. These sanctions include criminal penalties and civil sanctions, including fines, imprisonment and possible exclusion from the Medicare and Medicaid programs.

The Anti-Kickback Law is broad, and it prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Recognizing that the Anti-Kickback Law is broad and may technically prohibit many innocuous or beneficial arrangements within the healthcare industry, the U.S. Department of Health and Human Services issued regulations in July of 1991, which are referred to as "safe harbors." These safe harbor regulations set forth certain provisions which, if met in form and substance, will assure healthcare providers and other parties that they will not be prosecuted under the federal Anti-Kickback Law. Additional safe harbor provisions providing similar protections have been published intermittently since 1991. Our arrangements with physicians, physician practice groups, hospitals and other persons or entities who are in a position to refer may not fully meet the stringent criteria specified in the various safe harbors. Although full compliance with these provisions ensures against prosecution under the federal Anti-Kickback Law, the failure of a transaction or arrangement to fit within a specific safe harbor does not necessarily mean that the transaction or arrangement is illegal or that prosecution under the federal Anti-Kickback Law will be pursued. Conduct and business arrangements that do not fully satisfy one of these safe harbor provisions may result in increased scrutiny by government enforcement authorities such as the U.S. Department of Health and Human Services Office of Inspector General ("OIG").

Many states have adopted laws similar to the federal Anti-Kickback Law. Some of these state prohibitions apply to referral of patients for healthcare services reimbursed by any source, not only the Medicare and Medicaid programs. Although we believe that we comply with both federal and state anti-kickback laws, any finding of a violation of these laws could subject us to criminal and civil penalties or possible exclusion from federal or state healthcare programs. Such penalties would adversely affect our financial performance and our ability to operate our business.

HIPAA created new federal statutes to prevent healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private payors. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from government sponsored programs such as the Medicare and Medicaid programs. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. A violation of this statute is a felony and may result in fines or imprisonment or exclusion from government sponsored programs. Both federal and state government agencies are continuing heightened and coordinated civil and criminal enforcement efforts. As

part of announced enforcement agency work plans, the federal government will continue to scrutinize, among other things, the billing practices of hospitals and other providers of healthcare services. The federal government also has increased funding to fight healthcare fraud, and it is coordinating its enforcement efforts among various agencies, such as the U.S. Department of Justice, the OIG and state Medicaid fraud control units. We believe that the healthcare industry will continue to be subject to increased government scrutiny and investigations.

The Physician Payment Sunshine Act ("PPSA"), which was included in the PPACA, also imposes new reporting and disclosure requirements on device and drug manufacturers for any "transfer of value" made or distributed to prescribers and other healthcare providers. In addition, device and drug manufacturers will also be required to report and disclose any investment interests held by physicians and their immediate family members during the preceding calendar year. Failure to submit required information may result in civil monetary penalties of up to an aggregate of $150,000 per year (and up to an aggregate of $1 million per year for "knowing failures"), for all payments, transfers of value or ownership or investment interests not reported in an annual submission. Manufacturers will be required to begin data collection on August 1, 2013 and report such data to CMS by March 31, 2014.

In addition, there has been a recent trend of increased federal and state regulation of payments made to physicians for marketing. Some states, such as California, Massachusetts and Vermont, mandate implementation of compliance programs, along with the tracking and reporting of gifts, compensation and other remuneration to physicians. The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with different compliance and/or reporting requirements in multiple jurisdictions increase the possibility that a healthcare company may run afoul of one or more of the requirements.

Federal False Claims Act

Another trend affecting the healthcare industry is the increased use of the federal False Claims Act and, in particular, actions under the False Claims Act's "whistleblower" provisions. Those provisions allow a private individual to bring actions on behalf of the government alleging that the defendant has defrauded the federal government. After the individual has initiated the lawsuit, the government must decide whether to intervene in the lawsuit and to become the primary prosecutor. If the government declines to join the lawsuit, then the individual may choose to pursue the case alone, in which case the individual's counsel will have primary control over the prosecution, although the government must be kept apprised of the progress of the lawsuit. Whether or not the federal government intervenes in the case, it will receive the majority of any recovery. If the litigation is successful, the individual is entitled to no less than 15%, but no more than 30%, of whatever amount the government recovers. The percentage of the individual's recovery varies, depending on whether the government intervened in the case and other factors. Recently, the number of suits brought against healthcare providers by private individuals has increased dramatically. In addition, various states are considering or have enacted laws modeled after the federal False Claims Act. Under the Deficit Reduction Act of 2005 ("DRA"), states are being encouraged to adopt false claims acts similar to the federal False Claims Act, which establish liability for submission of fraudulent claims to the State Medicaid program and contain whistleblower provisions. Even in instances when a whistleblower action is dismissed with no judgment or settlement, we may incur substantial legal fees and other costs relating to an investigation. Future actions under the False Claims Act may result in significant fines and legal fees, which would adversely affect our financial performance and our ability to operate our business.

Further, on May 20, 2009, President Obama signed into law the Fraud Enforcement and Recovery Act of 2009, which greatly expanded the types of entities and conduct subject to the False Claims Act. We strive to ensure that we meet applicable billing requirements. However, the costs of defending claims under the False Claims Act, as well as sanctions imposed under the Act, could significantly affect our financial performance.

Health Insurance Portability and Accountability Act of 1996

In addition to creating the new federal statutes discussed above, HIPAA also establishes uniform standards governing the conduct of certain electronic healthcare transactions and protecting the security and privacy of individually identifiable health information maintained or transmitted by healthcare providers, health plans and healthcare clearinghouses.

The American Recovery and Reinvestment Act of 2009, commonly referred to as the economic stimulus package, signed into law on February 17, 2009, included the HITECH Act and dramatically expanded, among other things, (1) the scope of HIPAA to also include "business associates," or independent contractors who receive or obtain protected health information ("PHI") in connection with providing a service to the covered entity, (2) substantive security and privacy obligations, including new federal security breach notification requirements to affected individuals and Department of Health and Human Services and potentially media outlets, (3) restrictions on marketing communications and a prohibition on

covered entities or business associates from receiving remuneration in exchange for PHI, and (4) the civil and criminal penalties that may be imposed for HIPAA violations, increasing the annual cap in penalties from $25,000 to $1.5 million per year. HIPAA and HITECH are enforced by regulations promulgated by the U.S. Department of Health and Human Services, including a final omnibus rule published on January 25, 2013. We believe that we are in compliance with all of the applicable HIPAA and HITECH standards, rules and regulations, except possibly the January 25, 2013 final omnibus rule, with which we expect to be in compliance by the required date of September 23, 2013. However, if we fail to comply with these standards, we could be subject to criminal penalties and civil sanctions. In addition to federal regulations issued under HIPAA and HITECH, some states have enacted privacy and security statutes or regulations that, in some cases, are more stringent than those issued under HIPAA and HITECH. In those cases it may be necessary to modify our operations and procedures to comply with the more stringent state laws, which may entail significant and costly changes for us. We believe that we are in compliance with such state laws and regulations. However, if we fail to comply with applicable state laws and regulations, we could be subject to additional sanctions.

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 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. With the CE Mark, 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 of our devices in commercial distribution, including our VAD 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 international, 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 and manufacturing activities. 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 these and other laws or regulations in the future.

The Dodd-Frank Wall Street Reform and Consumer Protection Act includes certain disclosure requirements regarding the use of "conflict minerals" originating from the Democratic Republic of Congo and adjoining countries and procedures regarding a manufacturer's efforts to prevent the sourcing of "conflict minerals."

The Dodd-Frank Wall Street Reform and Consumer Protection Act impose new disclosure requirements regarding the use of "Conflict Minerals" mined from the Democratic Republic of Congo and adjoining countries in products, whether or not these products are manufactured by third parties. The conflict minerals include tin, tantalum, tungsten and gold, and their derivatives. These new requirements could affect the pricing, sourcing and availability of minerals used in the manufacture of our products. There will be additional costs associated with complying with the disclosure requirements, such as costs related to determining the source of any conflict minerals used in our products. Our supply chain is complex and we may be unable to verify the origins for all metals used in our products. We may also encounter challenges with our customers and stockholders if we are unable to certify that our products are conflict free.

In addition, compliance with complex international and U.S. laws and regulations that apply to our international operations increases our cost of doing business. These numerous and sometimes conflicting laws and regulations include U.S. laws such as the Foreign Corrupt Practices Act, the U. K. Bribery Act, and similar worldwide anti-bribery laws in non-U.S. jurisdictions, which generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business, among others. Violations of these laws and regulations could result in fines and penalties, criminal sanctions against us, our officers, or our employees, prohibitions on the conduct of our business and damage to our reputation. Although we have implemented policies and procedures designed to ensure compliance with these laws and regulations as well as training on such policies and procedures, there can be no assurance that our employees, contractors, distributors and agents will not violate our policies.

THIRD PARTY COVERAGE AND REIMBURSEMENT

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 Medicare, Medicaid, private health insurance companies and managed care organizations, reimburse our customers based on established payment formulas that take into account part or all of the cost associated with these devices and the related procedures performed.

The agency responsible for administering the Medicare program, CMS, and a majority of private insurers have approved reimbursement for our VADs and diagnostic and vascular graft products. Effective October 1, 2003, CMS issued a National Coverage Determination for the use of the HeartMate XVE for treating Destination Therapy in late-stage HF patients. With approval by the FDA for HeartMate II for DT on January 20, 2010, CMS expanded coverage effective November 9, 2010 to a slightly broader population. As of December 31, 2012, approximately 118 centers are now Joint Commission certificated for Destination Therapy and eligible for reimbursement by Medicare.

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, which is reflected in their coverage policies. 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 BTT and long-term therapy indications.

Healthcare laws in the U.S. are subject to ongoing changes, including changes to the amount of reimbursement for hospital services and the manner in which such services are paid. Federal legislation in particular can substantially change the way healthcare is financed by both governmental and private insurers and may negatively impact payment rates for our products. For example, in March 2010, the PPACA was passed, which imposes significant new measures and responsibilities on the U.S. pharmaceutical and medical device industries. The PPACA, among other things, establishes annual fees and taxes on manufacturers of certain medical devices, including our devices, and promotes programs that increase the federal government's comparative effectiveness research, which may be used to evaluate the selection of medical services by clinicians and others. PPACA also implements payment system reforms such as a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models, and creates an independent payment advisory board that will submit recommendations to reduce Medicare spending if projections of such spending exceed a specified growth rate.

In addition, other legislative changes have been proposed and adopted in the United States since the PPACA was enacted. On August 2, 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which, among other things, delayed for another two months the budget cuts mandated by these sequestration provisions of the Budget Control Act of 2011. The ATRA also reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other health care funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

We are unable to predict whether any circulating congressional proposals will become law or in what form. Also, from time-to-time there are a number of legislative, regulatory and other proposals both at the federal and state levels; it remains uncertain whether there will be any future changes that will be proposed or finalized and what effect, if any, such legislation or regulations would have on our business.

MANUFACTURING

VADs are manufactured at our facilities located in Pleasanton, California and Zurich, Switzerland. These facilities have been inspected, approved and licensed by the FDA and/or European Unified Body for the manufacture of medical devices, and have received the ISO 13485 Quality Systems certification. The manufacturing processes consist of utilizing precision components fabricated from a variety of materials and assembling these components into specific configurations governed by the VAD design requirements. During the manufacturing process, the VAD assemblies are rigorously tested to meet rigid operational and quality standards.

The manufacturing process relies on single sources of supply for several of the components used to manufacture VADs. We are working to identify and validate alternate sources of supply for critical components. Where alternate sources are not available, we are working to develop strategic alliances with the supplier and closely manage inventories to assure the ongoing supply of product.

During 2009 and 2010, we expanded the manufacturing facility located in Pleasanton, California. The main focus of the expansion project was to provide adequate manufacturing capacity to meet demand expectations for HeartMate II. As of December 29, 2012, the renovated facility has the necessary capacity to meet the requirements for our VAD products for the next four to six years.

We typically have been able to fill orders from inventory and historically have not had significant backlog orders. With the expanded manufacturing capacity we are in a position to accommodate the increased demand for our products. Total backlog as of the end of fiscal 2012, 2011, and 2010 was not significant.

RESEARCH AND DEVELOPMENT

Our research and development expenses in fiscal years 2012, 2011 and 2010 totaled $87.7 million, $66.3 million and $58.8 million, respectively. Research and development costs are largely project driven, and fluctuate based on the level of project activity planned and subsequently approved and conducted. The primary components of our research and development costs are employee salaries and benefits, outside consulting and equipment and supplies. Projects include advancing the HeartMate II platform, such as efforts to improve the operation and performance of our VAD products and accessories, along with efforts to develop new products, such as the development of the HeartMate X, HeartMate III and PHP pump. Research and development costs also include regulatory and clinical costs associated with our compliance with FDA regulations and clinical trials such as the completed HeartMate II DT pivotal trial completed in 2009.

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 years 2012, 2011 and 2010.

Sales originating outside of the U.S. and U.S. export sales accounted for approximately 19%, 18% and 17% of our total product sales in 2012, 2011 and 2010, respectively. No individual foreign country accounted for more than 10% of our net sales in any of the last three fiscal years.

EMPLOYEES

As of December 29, 2012, we had a total of 934 employees, consisting of 855 full-time employees and 79 temporary employees. Of our total employees, 867 are employed in the U.S. and 67 are employed outside the U.S. None of our employees is covered by a collective bargaining agreement. We consider relations with our employees to be good.

SEASONALITY

Our quarterly net sales are influenced by many factors, including new product introductions, acquisitions, divestitures, regulatory approvals, and other factors. Net sales in the third quarter are typically lower than other quarters of the year due to the seasonality of the U.S. and European markets, where summer vacation schedules can result in fewer procedures.

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

Our businesses face many risks. 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 occurs, 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 comply with government regulations, including FDA Quality System Regulations, or if our products experience certain adverse events, the FDA or foreign regulatory authorities may withdraw our market clearance or take other enforcement 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., clearance from the FDA of a 510(k) pre-market notification or approval of a more extensive submission known as a PMA application is required. If the FDA concludes that any of our products does not meet the requirements to obtain clearance under Section 510(k) of the FDCA, then we will be required to file a PMA application for that product. 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, a new PMA, 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.

In addition, our medical device products and operations are subject to extensive regulation by the FDA pursuant to the FDCA and various other federal, state and foreign governmental authorities. Government regulations and foreign requirements specific to medical devices are wide ranging and govern, among other things, design, development, manufacture, testing, labeling, storage, marketing, distribution, promotion, record keeping, and approval or clearance. The FDA requires us and certain of our third-party suppliers to adhere to Quality System Regulations ("QSR"), which include production design controls, testing, quality control, and labeling, packaging, sterilization, and storage and documentation procedures. The FDA may at any time inspect our facilities to determine whether we have adequate compliance with the FDA's QSR and other regulatory requirements. Compliance with QSR for medical devices is difficult and costly. If our facilities or those of our suppliers fail to take satisfactory corrective action in response to an adverse QSR inspection, the FDA could take enforcement action. For example, the FDA has issued and could in the future issue warning letters or other communications to the Company. If the Company fails to satisfy or remediate the matters discussed in any such warning letters or communications, the FDA could take further enforcement action, including prohibiting the sale or marketing of the affected product. The FDA also strictly regulates labeling, advertising, promotion, and other types of information on products that are placed on the market. Medical devices may be promoted only for their approved indications and in accordance with the provisions of the approved label. It is possible that federal or state enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under a variety of statutory authorities, including under the FDCA as well as laws prohibiting false claims for reimbursement. 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.

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 products 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 coverage and reimbursement by the CMS, the agency responsible for administering the Medicare program, in late 2003. We received FDA approval for the HeartMate II in Destination Therapy on January 20, 2010.

The number of Destination Therapy procedures actually performed depends on many factors, many of which are out of our direct control, including, but not limited to, the following:

- the number of CMS sites approved for Destination Therapy;
- the clinical outcomes of Destination Therapy procedures relative to pharmacological, gene- and cell-based therapies, and other device based alternatives;
- 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 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 healthcare payors, or use of alternative therapies including pharmacological, gene- and cell-based therapies, and other device based alternatives. Also, economic, psychological, ethical and other concerns may limit general acceptance of our ventricular assist products.

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 divisions of healthcare companies, pharmaceutical companies and gene- and cell-based therapies is intense and is expected to increase. The vast majority of VAD-eligible patients still receive pharmacological treatment instead of a VAD. We continue to expect new competitors both from the pharmacological and the medical device space. Among the medical device competitors are Terumo Heart, Inc., HeartWare International Inc., AbioMed, Inc., Jarvik Heart, Inc., MicroMed Technology, Inc., SynCardia Systems, Inc., CircuLite, Aachen Innovative Solutions GmbH, Maquet Cardiovascular, LLC (a division of Getinge AB) and Berlin Heart GmbH.

Some of our competitors have substantially greater financial, technical, distribution, marketing and manufacturing resources than we do, 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 provide additional alternatives to 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.

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

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. For example, a single source supplier currently manufactures and supplies components used to manufacture the ruby bearings used in the HeartMate II pump. 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 may 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 products, or through such time that we expect to 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 with FDA approval of those products and indications currently under development. If we have difficulty manufacturing any of our products, our

sales may prove lower than would otherwise be the case, and our reputation, business, financial condition and results of operations 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, because some of our products are used in situations where a malfunction can be life threatening, identified material deficiencies or defects in design or manufacture or labeling can result in the recall and replacement, generally free of charge, of substantial amounts of products already implanted or otherwise in the marketplace. The FDA and similar foreign governmental authorities have the authority to require the recall of commercialized products. In the case of the FDA, the authority to require a recall must be based on an FDA finding that there is a reasonable probability that the device would cause serious injury or death. Manufacturers may, under their own initiative, recall a product if any material deficiency in a device is found. A government mandated or voluntary recall by us or one of our distributors could occur as a result of component failures, manufacturing errors, design or labeling defects or other deficiencies and issues. Recalls of any of our products would divert managerial and financial resources and have an adverse effect on our financial condition and results of operations. We may initiate certain voluntary recalls, which can include field safety notices or physical product removal, involving our products in the future. Companies are required to maintain certain records of recalls, even if they are not reportable to the FDA. If we determine that certain of those recalls do not require notification of the FDA, the FDA may disagree with our determinations and require us to report those actions as recalls. A future recall announcement could harm our reputation with customers, negatively affect our sales, and subject us to additional FDA enforcement actions.

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.

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 product line. If we fail to commercialize any of these new products or product improvements or to develop new indications on a timely basis, or if such products, product improvements or indications are not well accepted by the market, our future growth may suffer.

If we are unable to successfully complete the pre-clinical studies or clinical trials necessary to support our PMA applications or PMA supplements, our ability to obtain new approvals will be limited.

Before submitting a PMA application, we must successfully complete pre-clinical studies and clinical trials to demonstrate that the product is safe and effective. Product development, including pre-clinical studies and clinical trials, is a long, expensive and uncertain process and is subject to delays and failure at any stage. Furthermore, the data obtained from the trial may be inadequate to support approval of a PMA application. The commencement or completion of any of our clinical trials may be delayed or halted, or be inadequate to support approval of a PMA application, for numerous reasons, including, but not limited to, the following:

- the FDA or other regulatory authorities do not approve a clinical trial protocol or a clinical trial, or place a clinical trial on hold;
- patients do not enroll in clinical trials at the rate we expect;
- patients do not comply with trial protocols;
- patient follow-up is not at the rate we expect;
- patients experience adverse side effects;
- patients die during a clinical trial, even though their death may not be related to our products;

- institutional review boards and third-party clinical investigators delay or reject our trial protocol;
- third-party clinical investigators decline to participate in a trial or do not perform a trial on our anticipated schedule or consistent with the clinical trial protocol, good clinical practices or other regulatory requirements;
- third-party organizations do not perform data collection and analysis in a timely and accurate manner;
- regulators inspect our clinical trials or manufacturing facilities, which may, among other things, require us to undertake corrective action or suspend or terminate our clinical trials;
- there are changes in governmental regulations or administrative actions;
- the interim or final results of a clinical trial are inconclusive or unfavorable as to safety or efficacy; and
- the FDA concludes that our trial design is inadequate to demonstrate safety and efficacy.

The results of pre-clinical studies do not necessarily predict future clinical trial results, and predecessor clinical trial results may not be repeated in subsequent clinical trials. Additionally, the FDA may disagree with our interpretation of the data from our pre-clinical studies and clinical trials, or may find the clinical trial design, conduct or results inadequate to prove safety or efficacy, and may require us to pursue additional pre-clinical studies or clinical trials, which could further delay the approval of our products. If we are unable to demonstrate the safety and efficacy of our products in our clinical trials, we will be unable to obtain regulatory approval to market our products. The data we collect from our current clinical trials, our pre-clinical studies and other clinical trials may not be sufficient to support FDA approval.

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.

Many aspects of VAD products generally are not protected by any patents. We rely on both trade secret protection and patents to protect our rights to our products and technology.

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.

Because 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 certain countries in Europe, we sell our Thoratec, HeartMate, and CentriMag product lines in foreign markets through distributors.

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

Our non-U.S. sales present additional risks, which could harm our operations or financial results.

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 additional risks. For example:

- we sell some of our products at a lower price outside the U.S.;
- sales agreements with foreign customers 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;
- 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 protect 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 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 potential customers 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.

Because our physician and hospital customers depend on third party reimbursement, if third party payors, including government agencies such as the Centers for Medicare & Medicaid Services, fail to provide appropriate levels of reimbursement for our products, our results of operations will be harmed. Similarly, if third party payors decide to restrict coverage or the ability of hospital customers to treat patients with VAD therapy, our results of operations could also be harmed.

Governmental and other third party payors are increasingly attempting to contain healthcare 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, as well as CMS, which is responsible for implementing the Medicare program, have determined to reimburse some or all of the cost associated with the implantation of our VADs, but we cannot predict whether our products or the services performed with the use of our products will continue to be approved for reimbursement in whole or in part. In addition, changes in the healthcare system may affect the reimbursability of future products. If coverage were partially or completely reduced, our revenues and results of operations would be harmed. This uncertainty could delay or prevent adoption by hospitals of our products in volume.

Healthcare laws and regulations may change significantly in the future, which could adversely affect our financial condition and results of operations. We continuously monitor these developments and modify our operations from time-to-time as the legislative and regulatory environment changes. We are unable to predict whether any currently circulating congressional proposals will become law or in what form, whether any additional or similar changes to statutes or regulations (including interpretations) will occur in the future, or what effect any such legislation or regulation would have on our business. The federal government is expected have greater involvement in the healthcare industry than in prior years, and such greater involvement may adversely affect our financial condition and results of operations. For a more detailed discussion of the various state and federal legislative changes see "Business—Third Party Coverage and Reimbursement."

Complying with federal, state and international regulations is an expensive and time-consuming process, and any failure to comply could result in substantial penalties.

We are directly or indirectly through our customers subject to extensive regulation by both the federal government and the states in which we conduct our business, including the federal Anti-Kickback Law and similar state anti-kickback laws, the federal False Claims Act, HIPAA and similar state laws addressing privacy and security, state unlawful practice of medicine and fee splitting laws, state certificate of need laws, the Medicare and Medicaid statutes and regulations, the Medicare Prescription Drug, Improvement and Modernization Act of 2003 and the Foreign Corrupt Practices Act ("FCPA"), among other federal and state regulations. Both federal and state government agencies have heightened and coordinated civil and criminal enforcement efforts as part of numerous ongoing investigations of healthcare companies, as well as their executives and managers. These investigations relate to a wide variety of matters, including referral and billing practices. The OIG and the Department of Justice have, from time-to-time, established national enforcement initiatives that focus on specific billing practices or other suspected areas of abuse. Some of our activities could become the subject of governmental investigations or inquiries.

We are also subject to international laws and regulations that increase the cost of doing business in each of the foreign countries where our products are sold. These numerous and sometimes conflicting laws and regulations include U.S. laws such as the FCPA, the U.K. Bribery Act, and similar worldwide anti-bribery laws in non-U.S. jurisdictions. Although, we have implemented policies and procedures designed to ensure compliance with these laws and regulations as well as training on such policies and procedures, there can be no assurance that our employees, contractors, distributors and agents will not violate our policies.

If our operations are found to be in violation of any of the laws and regulations to which we are subject, we may be subject to the applicable penalty associated with the violation, including civil and criminal penalties, damages, fines and the curtailment of our operations. Any penalties, damages, fines or curtailment of our operations, individually or in the aggregate, could adversely affect our ability to operate our business and our financial results. Our risk of being found in violation of these laws and regulations is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action against us for violation of these laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert management's attention from the operation of our business. For a more detailed discussion of the various state, federal, and international regulations to which we are subject see "Business—Government Regulations" and "Business—Third Party

Coverage and Reimbursement." See also the risks described under the heading "*Federal and state anti-kickback laws may adversely affect our operations and income*" in this "Risk Factors" section.

We depend on HeartMate II for a significant portion of our revenues.

We derive, and expect to continue to derive, a significant portion of our revenues from sales of our HeartMate II product. While we cannot predict what level of revenues our HeartMate II product will generate, we anticipate that HeartMate II pump sales will continue to account for a significant portion of our revenues in the foreseeable future. Implementation of our strategy depends on continued sales of our HeartMate II product. Sales of our HeartMate II product are subject to the factors described in this "Risk Factors" section, including, but not limited to, the following:

- failure to obtain approval from the FDA and foreign regulatory authorities or to comply with government regulations, or the withdrawal of market clearance or other the taking of other enforcement actions;
- lack of Destination Therapy procedures conducted by hospitals using our VADs;
- lack of acceptance or continued acceptance by physicians;
- reliance on specialized suppliers for certain components and materials;
- manufacturing problems;
- any identified quality problems;
- inability to protect our proprietary technologies or an infringement of others' patents;
- loss of a distributor or distributor failure to perform;
- failure to compete successfully against our existing or potential competitors;
- special risks associated with non-U.S. sales;
- long and variable sales and deployment cycles;
- failure by third party payors to provide appropriate levels of reimbursement;
- failure to comply with federal and state regulations; and
- product liability claims.

The outcomes of these and other factors will have a significant impact on our future HeartMate II product sales and our revenues.

The "Patient Protection and Affordable Care Act" includes provisions that may adversely affect our business and results of operations, including an excise tax on the sales of most medical devices.

In March 2010, the U.S. President signed the PPACA, which makes changes that are expected to significantly impact the pharmaceutical and medical device industries. We are continuing to evaluate this legislation and its potential impact on our business. It may adversely affect the demand for our products and services, and therefore our financial position and results of operations, possibly materially.

Specifically, one of the components of the new law is a 2.3% excise tax on sales of most medical devices, which include our MCS products, starting in 2013. Though there are some exceptions to the excise tax, this excise tax does apply to most of our product revenue generated within the United States. The Congressional Budget Office estimates that the total cost to the medical device industry could exceed $30 billion over ten years. This tax may put increased pressure on medical device manufacturers and purchasers, decrease profits to us, and/or reduce medical procedure volumes, which may adversely affect our business, financial condition and results of operations. Other elements of the PPACA, including comparative effectiveness research, an independent payment advisory board, payment system reforms (including shared savings pilots)

and the reporting of certain payments by us to healthcare professionals and hospitals (the "Physician Payment Sunshine Act"), could meaningfully change the way healthcare is developed and delivered, and may materially impact numerous aspects of our business.

Various healthcare reform proposals have also emerged at the state level, and we are unable to predict which, if any of these proposals will be enacted. We believe that the uncertainty created by healthcare reform in the United States has complicated our customers' decision-making process and may impact our MCS business, and we expect that this uncertainty will persist until there is greater clarity on how the PPACA and state proposals will affect healthcare providers. We are unable to predict what effect the ongoing uncertainty surrounding these matters will have on our customers' purchasing decisions. However, an expansion in government's role in the U.S. healthcare industry may adversely affect our business, possibly materially.

If we fail to comply with federal and state anti-kickback laws, our operations and income may be adversely affected.

Various federal and state laws govern financial arrangements among healthcare providers. The federal Anti-Kickback Law prohibits the knowing and willful offer, payment, solicitation or receipt of any form of remuneration in return for, or to induce, the referral of Medicare, Medicaid or other federal healthcare program patients, or in return for, or to induce, the purchase, lease or order of items or services that are covered by Medicare, Medicaid or other federal healthcare programs. Many state laws also prohibit the solicitation, payment or receipt of remuneration in return for, or to induce, the referral of patients in private as well as government programs. Violation of these laws may result in substantial civil or criminal penalties and/or exclusion from participation in federal or state healthcare programs. While we believe that we are operating in compliance with applicable laws and believe that our arrangements with providers would not be found to violate the federal and state anti-kickback laws, it is possible that these laws could be interpreted in a manner that could have an adverse effect on our operations.

In addition, under the DRA, states are encouraged to adopt false claims acts, similar to the federal False Claims Act, which establish liability for submission of fraudulent claims to the State Medicaid program and contain qui tam or whistleblower provisions. States enacting such false claims statutes will receive an increased percentage of any recovery from a State Medicaid judgment or settlement.

Adoption of new false claims statutes in states where we operate may impose additional requirements or burdens on us, which could adversely affect our operations and income.

For a more detailed discussion of the various state and federal anti-kickback regulations to which we are subject see "Business—Government Regulations".

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

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 current and total liabilities. 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 current and total liabilities, we would be in default.

It may be difficult for us to obtain any necessary financing in the future for working capital, capital expenditures, debt service, acquisitions or general corporate purposes, and therefore limit our flexibility in planning for or reacting to changes in our business by reducing funds available for use in our operations. This could make us more vulnerable in the event of a downturn in our business or an increase in interest rates and place us at a possible competitive disadvantage relative to less leveraged competitors and competitors that have better access to capital resources.

Any failure to meet our obligations under our current and long-term liabilities could have a material adverse effect on our business, operating results and financial condition.

Valuation adjustments to goodwill and intangible assets, which represent a significant portion of our total assets, may 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. in 2001 and the acquisition of Levitronix Medical in August 2011. 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 or goodwill increases the risk of a large charge to earnings if recoverability of these intangible assets or goodwill is impaired, which would have an adverse effect on our net income. For example, in fiscal 2012 we recorded an impairment charge of $50.2 million related to the purchased intangibles assets from our merger with Thermo Cardiosystems, Inc. discussed above.

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 ranged from $29.00 to $39.27 during the twelve months ended December 29, 2012. The price of our common stock could fluctuate significantly for many reasons, including but not limited to the following:

- future announcements concerning us or our competitors;
- regulatory developments, including ongoing healthcare reform initiatives, enforcement actions bearing on advertising, marketing or sales, and disclosure regarding completed ongoing or future clinical trials;
- enforcement actions by FDA or foreign regulatory authorities;
- 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 our estimates of business operations, product development or financial performance;
- business acquisitions or divestitures;
- changes in earnings estimates by analysts;
- changes in third party reimbursement practices;
- announced common stock repurchases;

- charges, amortization and other financial effects relating to our business; and

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

In addition, stock markets in general and the market for shares of healthcare stocks in particular, have experienced extreme price and volume fluctuations, including recently as a result of the global financial crisis. These fluctuations can be 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. 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 may be diverted from operating our business in order to respond to the litigation.

Global economic, political and market conditions could adversely affect our business and liquidity.

Our operations and performance depend significantly on global economic, political and market conditions. Uncertainty about global economic, political and market conditions poses a risk as consumers and businesses decrease or postpone spending in response to tighter credit, unemployment, negative financial news and/or declines in income or asset values. Continued concerns about the systemic impact of the recent recession, energy costs, geopolitical issues, the availability and cost of credit, and the global housing and mortgage markets have contributed to increased market volatility and diminished expectations for western and emerging economies. As a result of these market conditions, the cost and availability of credit has been and may continue to be adversely affected by illiquid credit markets and wider credit spreads. These factors have led to a decrease in spending by businesses and consumers alike.

Global economic, political and material conditions could have a material adverse effect on our business and the demand for our products and services. In addition, turbulence in the U.S. and international markets and economies and prolonged declines in spending may adversely affect our liquidity and financial condition, and the liquidity and financial condition of our distributors, customers and suppliers, including our ability to refinance maturing liabilities and access the capital markets to meet liquidity needs.

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

We may acquire other companies' products or technologies that we believe to be complementary to our business, such as the purchase of Levitronix Medical in August 2011. 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, such as the 2010 sale of our wholly owned subsidiary, International Technidyne Corporation, and we may sell an asset or business for less than its carrying value.

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. If we are unable to meet these demands our reputation, revenue and results of operations could be harmed.

Revisions to accounting standards and financial reporting and corporate governance requirements 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 and financial reporting and corporate governance requirements and tax laws set by the governing bodies and lawmakers in the U.S. and in other jurisdictions 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 and financial reporting and corporate governance requirements may require changes to our financial statements, the composition of our Board of Directors, the responsibility and manner of operation of various board level committees and the information filed by us with the governing bodies. Our accounting principles that recently have been or may be affected by changes in the accounting principles are as follows:

- accounting for intangibles—goodwill and other;
- fair value measurement;
- accounting for convertible debt instruments;
- accounting for income taxes;
- accounting for leases; and
- accounting for business combinations.

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 and financial reporting and corporate governance requirements.

We use estimates, make judgments and apply certain methods in measuring the progress of our business in determining our financial results and in applying our accounting policies. As these estimates, judgments and methods change, our assessment of the progress of our business and our results of operations could vary.

The methods, estimates and judgments we use in applying our accounting policies have a significant impact on our results of operations. Such methods, estimates and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time that may lead us to change our methods, estimates and judgments. Changes in any of our assumptions may cause variation in our reporting and may adversely affect our reported financial results.

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

We are vulnerable to damage from various types of disasters, including earthquakes, fires, terrorist acts, floods, power losses, communications failures and similar events. 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 could manufacture products from a replacement facility. Our Pleasanton facility is located in an area of frequent seismic activity. In addition, our suppliers and customers also have operations in locations vulnerable to various types of disasters. Any insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions and our emergency response plans may not be effective in preventing or minimizing losses in the future. Therefore, any such catastrophe could seriously harm our business and 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., Switzerland, 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 could increase our future tax obligations.

Unanticipated changes in our tax rates could affect our future results of operations. Our future effective tax rates could be unfavorably 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, state tax authorities, 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 income tax expense and our reserves for potential adjustments, including tax credits and other tax benefits that can be challenged under audit by various taxing authorities resulting in potential reduction in the amount of credits or other benefits eventually realized. 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.

For a more detailed discussion of the additional taxes to which we are subject see "Business—Third Party Coverage and Reimbursement."

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 require 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 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.

This 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.

Disruptions of critical information systems or material breaches in the security of our systems could harm our business, customer relations and financial condition.

We rely in part on information technology to interface with customers, maintain financial accuracy and accurately produce our financial statements. If our information technology systems do not effectively collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies or human error, our ability to effectively plan, forecast and execute our business plan and comply with applicable laws and regulations will be impaired, perhaps materially. Any such impairment could have a material adverse effect on our results of operations, financial condition and the timeliness with which we report our internal and external operating results.

Our business requires us to use and store customer, employee and business partner personally identifiable information. While we devote significant resources to network security, data encryption and other security measures to protect our systems and data, these security measures cannot provide absolute security. The costs to us to eliminate or alleviate network security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in unexpected interruptions,

delays, cessation of service and may harm our business operations. Moreover, if a computer security breach affects our systems or results in the unauthorized release of personally identifiable information, our reputation could be materially damaged. We would also be exposed to a risk of loss or litigation and potential liability, which could have a material adverse effect on our business, results of operations and financial condition.

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

None.

Item 2. ***Properties***

We are headquartered in Pleasanton, California, where we own an approximately 66,000 square-foot office building for our corporate offices. We consider our operating properties to be in satisfactory condition and adequate to meet our needs for the next several years without making capital expenditures materially higher than historical levels.

Additionally, we lease the following facilities:

- Approximately 62,000 square feet of office, manufacturing, and research facilities in Pleasanton, California, expiring in 2027.
- Approximately 30,000 square feet of office and research facilities in Pleasanton, California, expiring in 2022.
- Approximately 39,000 square feet of office and research facilities in Burlington, Massachusetts, expiring in 2014.
- Approximately 24,400 square feet of warehouse space in San Ramon, California, expiring in 2015.
- Approximately 13,600 square feet of office and research facilities in Sunnyvale, California, expiring in 2015.
- Approximately 11,000 square feet of office and research facilities in Rancho Cordova, California, expiring in 2017.
- Approximately 1,700 square feet of office facilities in Gainesville, Florida under a month-to-month lease.
- Approximately 13,000 square feet of research, office and warehouse facilities in Zurich, Switzerland expiring in 2017.
- Approximately 10,000 square feet of office and research facilities in Burlington, Massachusetts, expiring in 2014
- Approximately 8,700 square feet of office and warehouse facilities in the U.K., expiring in 2022.

Our Pleasanton manufacturing facility and San Ramon warehouse space have been inspected, approved, and licensed for the manufacture of medical devices by the FDA and European Notified Body. Additionally, these two facilities are subject to inspections, approvals and licensing by the State of California Department of Health Services (Food and Drug Section).

We utilize all of the facilities in California, Massachusetts, Florida, the U.K. and Switzerland.

Item 3. ***Legal Proceedings***

From time-to-time we are involved in litigation arising out of claims in the normal course of business. Based on the information presently available, management believes that there are no claims or actions pending or threatened against us, the ultimate resolution of which will have a material effect on our financial position, liquidity or results of operations, although the results of litigation are inherently uncertain.

Item 4. ***Mine Safety Disclosures***

Not applicable.

OUR EXECUTIVE OFFICERS

Gerhard F. Burbach, 50, 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-state imaging products and services to cardiologist offices, hospitals and imaging centers from April 2005 to January 2006. 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. Mr. Burbach received a Bachelors of Science in industrial engineering from Stanford University and a Masters of Business Administration from Harvard Business School. Mr. Burbach also serves on the board of Fluidigm Corporation, a biotechnology company focused on single-cell genomics based on microfluidic technology.

David A. Lehman, 52, 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. Mr. Lehman has a Bachelors of Arts in political science from the University of California, San Diego, and a Juris Doctor from Cornell University Law School.

Taylor C. Harris, 37, Vice President and Chief Financial Officer, joined our company as Senior Director of Investor Relations and Business Development in February 2010. Mr. Harris was appointed as Vice President and Chief Financial Officer in October 2012. Prior to joining Thoratec, Mr. Harris worked at JPMorgan Chase & Co. for over a decade in several capacities, including as a Vice President in the firm's Healthcare Investment Banking and Equity Research departments. In these roles, Mr. Harris covered the medical device sector as an investment research analyst and advised healthcare companies on a broad range of strategic and capital markets transactions. Mr. Harris holds a B.A. in Physics and Economics from the University of North Carolina at Chapel Hill.

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 8, 2013 there were 57,605,296 shares of our common stock outstanding with approximately 375 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 2012		
First Quarter	$35.72	$29.00
Second Quarter	$35.23	$29.75
Third Quarter	$36.04	$31.19
Fourth Quarter	$39.27	$34.21
Fiscal Year 2011		
First Quarter	$31.20	$23.06
Second Quarter	$35.70	$26.42
Third Quarter	$36.64	$30.16
Fourth Quarter	$37.37	$28.16

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 29, 2012.

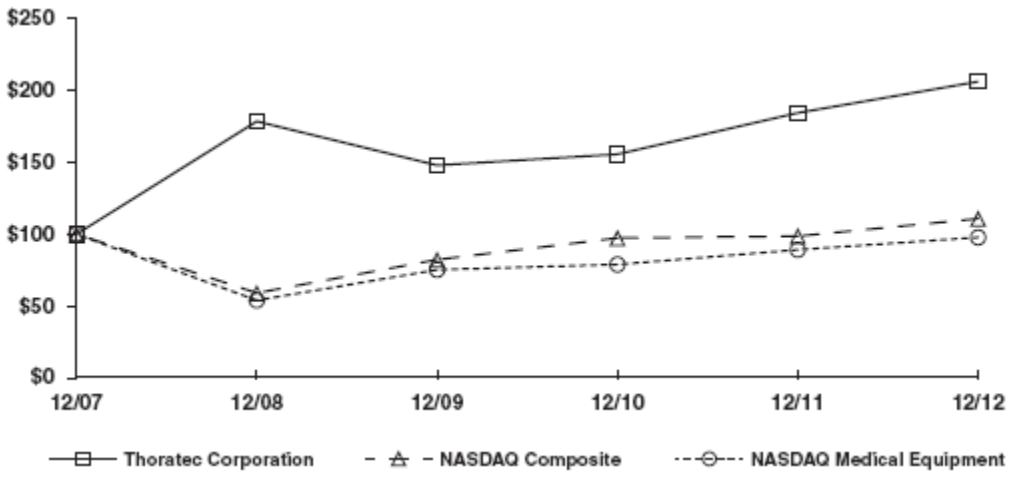
Information regarding securities authorized for issuance under equity compensation plans is incorporated by reference to the information in Item 12 of this Annual Report on Form 10-K.

Stock Price Performance Graph

The graph below compares the cumulative total shareholder return on an investment in our common stock, the NASDAQ Composite Index (U.S. companies only) and the NASDAQ Medical Equipment Index for the five-year period ended December 29, 2012, the last trading day in our 2012 fiscal year.

The graph assumes the value of an investment in our common stock and each index was $100 at December 29, 2007 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 December 31, 2007, in stock or index, including reinvestment of dividends.

	As of December 31,					
	2007	2008	2009	2010	2011	2012
Thoratec Corporation	$100.00	$178.61	$147.99	$155.69	$184.50	$206.27
NASDAQ Composite	$100.00	$59.03	$82.25	$97.32	$98.63	$110.78
NASDAQ Medical Equipment	$100.00	$53.91	$75.19	$78.88	$89.14	$97.76

Issuer Purchases of Equity Securities

The following table sets forth certain information about our common stock repurchased during the three months ended December 29, 2012

	Total number of shares purchased(1)	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs(2)(3)	Approximate dollar value of shares that may yet be purchased under the plans or programs(3)
		(in thousands, except per share data)		
October 1 - October 31, 2012	1,505	$34.69	—	$44,653
November 1 - November 30, 2012 ...	1,396	$34.50	1,479,095	$75,000
December 1 - December 29, 2012	668	$37.96		$75,000
Total	3,569	$35.23	1,479,095	$75,000

During fiscal 2011, under a $100 million repurchase program announced on February 14, 2011 ("February 2011 program"), we paid an aggregate of $50 million to repurchase 1,783,267 shares of our common stock. On November 7, 2011 we announced that our Board of Directors authorized a new program ("November 2011 program") for the repurchase of up to $50 million worth of shares of our common stock, with an expiration date of November 2, 2012. Additionally, the Board of Directors extended the expiration date for the $50 million remaining under the February 2011 program to November 4, 2012. No shares were repurchased under the February 2011 and November 2011 programs in the fourth quarter of 2012 and both programs expired on November 4, 2012.

On November 26, 2012, we announced that the Board of Directors had authorized the repurchase of up to $150 million of the Company's shares of common stock ("November 2012 program"). As part of the authorization, the Company entered into a $75.0 million Accelerated Share Repurchase (ASR) agreement with J.P. Morgan, which began immediately. Under the ASR agreement, Thoratec received an initial delivery of 1,479,095 shares at the inception of the program. The total number of shares ultimately purchased under the agreement will be determined upon final settlement, using the volume-weighted average price of the Company's common stock over a period of time of up to 4.5 months. The balance of the authorization allows us to acquire shares in the open market or in privately negotiated transactions prior to the program's expiration date.

(1) Shares purchased that were not part of our publicly announced repurchase programs represent the surrender value of shares of restricted stock awards and restricted stock units 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.

(2) Under the ASR agreement, during the three month period ended December 29, 2012, we paid an aggregate of $75.0 million and received an initial delivery of 1,479,095 shares of our common stock (at average price of $38.03). Of the $75.0 million, $18.75 million was allocated to the equity forward contract with the final number of shares to be determined at the settlement date in early 2013. All share repurchases have reduced the number of shares of our common stock that are issued and outstanding. As of December 29, 2012, $75.0 million is available for repurchase of our common stock under our November 2012 program.

(3) Cumulative amounts through each respective month ending in 2012.

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

The selected consolidated financial data presented below for the five fiscal years ended December 29, 2012 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 in Item 8.

We report on a 52-53 week fiscal year, which ends on the Saturday closest to December 31. Accordingly, our fiscal year contains more or less than 365 days. Fiscal year ended January 3, 2009 ("Fiscal 2008") included 53 weeks; and fiscal years ended January 2, 2010 ("Fiscal 2009"), January 1, 2011 ("Fiscal 2010"), December 31, 2011 ("Fiscal 2011"), and December 29, 2012 ("Fiscal 2012") each included 52 weeks. The operating results of ITC have been segregated and presented as discontinued operations for all applicable periods.

	Fiscal Years				
	2012	2011	2010	2009	2008
	(In thousands, except per share data)				
Statements of Operations Data:					
Continuing Operations(1):					
Product sales	$491,654	$422,713	$382,973	$279,968	$214,975
Gross profit(4)	291,375	287,651	250,539	175,688	132,120
Net income from continuing operations	$56,163	$72,575	$59,005	$28,905	$16,393
Net income per share from continuing operations:					
Basic	$0.96	$1.23	$1.02	$0.51	$0.30
Diluted	$0.94	$1.20	$0.99	$0.50	$0.30
Discontinued Operations(1):					
Net income (loss) from discontinued operations	$—	$(1,031)	$(5,839)	$(321)	$1,938
Net income (loss) per share from discontinued operations:					
Basic	$—	$(0.02)	$(0.10)	$(0.01)	$0.03
Diluted	$—	$(0.01)	$(0.10)	$(0.01)	$0.03
Consolidated Operations:					
Net income	$56,163	$71,544	$53,166	$28,584	$18,331
Net income per share:					
Basic	$0.96	$1.21	$0.92	$0.50	$0.33
Diluted	$0.94	$1.19	$0.89	$0.49	$0.33
Consolidated Balance Sheet Data(1)(3)					
Cash and cash equivalents and short-term available-for-sale investments	$249,748	$193,414	$448,143	$306,961	$249,986
Working capital	328,371	294,031	403,050	379,123	302,201
Assets held for sale offset by liabilities related to assets held for sale	—	—	—	54,981	51,901
Total assets	698,364	680,988	837,743	747,883	685,420
Contingent liabilities—current portion(3)	4,220	1,518	—	—	—
Senior subordinated convertible notes(2)	—	—	138,165	131,929	124,115
Long-term deferred tax liability	2,780	20,429	20,109	32,099	38,485
Contingent liabilities—long-term portion(3)	17,832	22,052	—	—	—
Total shareholders' equity(2)	$596,743	$584,450	$621,360	$525,128	$466,279

(1) During the fiscal year 2010, we completed the sale of International Technidyne Corporation ("ITC"). We accounted for the transaction as discontinued operations, and, accordingly, we have reclassified the results of operations and any losses resulting from the disposition for all periods presented to reflect them as such. Loss from discontinued operations in fiscal 2010 included a loss on disposal of $0.6 million. In fiscal 2011, we recorded a charge of $1.0 million ($1.8 million net loss less tax benefit of $0.8 million) for ITC primarily related to post-close severance payments. In addition, for all prior periods presented, we reported working capital from continuing operations separately from assets held for sale offset by related liabilities attributable to discontinued operations.

(2) During May 2011, all remaining outstanding senior subordinated convertible notes were redeemed for $164.4 million in cash and issuance of 2,397,535 shares of common stock with an estimated fair value at redemption of $82.7 million. The difference of $105.7 million between the fair value of the aggregate consideration paid ($247.1 million) and the face value ($141.4 million) was recorded to additional paid-in capital.

(3) On August 3, 2011, we acquired the medical business of Levitronix LLC ("Levitronix Medical"), for approximately $110 million in cash, plus additional cash earn-out amounts (not to exceed $40 million in aggregate). This earn-out

is contingent upon achievement of certain product revenue targets and is payable over the four year period starting on August 3, 2011. This acquisition has been accounted for as a business combination, and the assets and liabilities were recorded as of the acquisition date, at their respective fair values. The results of operations of Levitronix Medical have been consolidated in our results of continuing operations from August 3, 2011. At December 29, 2012, the remaining contingent liability (current and non-current portions) was estimated to be $22.1 million.

(4) Gross profit in 2012 includes an impairment charge of $50.2 million. Refer to Note 6 for additional discussion of impairment charge in the Notes to Consolidated Financial Statements contained elsewhere in this Annual Report on Form 10-K.

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 on Form 10-K 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," "plans," "could" and other 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, except as required by law, 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 elsewhere in this Annual Report on Form 10-K.

OVERVIEW

Continuing Operations—Cardiovascular Business

Thoratec Corporation ("we," "our," "us", "Thoratec" or the "Company") is the world leader in mechanical circulatory support with a product portfolio to treat the full range of clinical needs for advanced heart failure patients. We develop, manufacture and market proprietary medical devices used for circulatory support.

We develop, manufacture and market proprietary medical devices used for mechanical circulatory support ("MCS") for the treatment of heart failure ("HF") patients. For chronic circulatory support for HF patients, our primary product lines are our ventricular assist devices ("VADs"): HeartMate Left Ventricular Assist System ("HeartMate XVE"), HeartMate II Left Ventricular Assist System ("HeartMate II"), Thoratec Paracorporeal Ventricular Assist Device ("PVAD"), and Thoratec Implantable Ventricular Assist Device ("IVAD"). We refer to HeartMate XVE and HeartMate II collectively as the "HeartMate product line" and PVAD and IVAD collectively as the "Thoratec product line." For acute circulatory support, our product lines are CentriMag Acute Circulatory System ("CentriMag") and for pediatric patients PediMag/PediVAS Acute Circulatory System ("PediMag/PediVAS"). HeartMate XVE, HeartMate II, PVAD, IVAD, CentriMag and PediMag/PediVAS are approved by the U.S. Food and Drug Administration ("FDA"), and have received Conformité Européene ("CE") Mark approval in Europe.

MCS devices supplement the pumping function of the heart in patients with 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 MCS devices. Some of our devices can also provide support for the right side of the heart.

HeartMate II

HeartMate II is an implantable, electrically powered, continuous flow, left ventricular assist device ("LVAD") consisting of a rotary blood pump designed to provide intermediate and long-term MCS. HeartMate II is designed to improve

survival and quality of life for a broad range of advanced HF patients. Significantly smaller than HeartMate XVE and with only one moving part, HeartMate II is simpler and designed to operate more quietly than pulsatile devices.

HeartMate II received FDA approval in April 2008 for bridge-to-transplantation ("BTT") and received FDA approval for use in HF patients who are not eligible for heart transplantation ("Destination Therapy" or "DT") in January 2010. In November 2005, HeartMate II received CE Mark approval. The HeartMate II is most widely used and standard LVAD.

HeartMate XVE

HeartMate XVE is an implantable, pulsatile, left ventricular assist device for intermediate and longer-term MCS. Patients with a HeartMate XVE do not require anticoagulation drugs, other than aspirin, because of the product's incorporation of proprietary textured surfaces and tissue valves. We discontinued the sale of HeartMate XVE at the end of fiscal 2011.

HeartMate XVE received FDA approval for BTT in December 2001 and for DT in April 2003. In June 2003, HeartMate XVE received CE Mark approval.

CentriMag

CentriMag is an extracorporeal full-flow acute surgical support platform incorporating a polycarbonate pump, based on magnetically levitated bearingless motor technology. CentriMag is cleared by the FDA for use up to six hours in patients requiring short-term extracorporeal circulatory support during cardiac surgery. Additionally, CentriMag is approved under an FDA humanitarian device exemption ("HDE") to be used as a right ventricular assist device for periods of support up to thirty days in patients in cardiogenic shock due to acute right ventricular failure. We have an ongoing study to evaluate the effectiveness of the CentriMag for periods of support up to thirty days. CentriMag has CE Mark approval to provide support for up to thirty days for both cardiac and respiratory failure.

On August 3, 2011, we completed the acquisition of the medical business of Levitronix LLC ("Levitronix Medical"). Prior to the acquisition, we provided distribution and clinical support to Levitronix Medical in the U.S. for CentriMag under an agreement that would have expired at the end of 2011.

PediMag/PediVAS

PediMag and PediVAS are identical, extracorporeal full-flow acute surgical support platforms incorporating a polycarbonate pump, based on magnetically levitated bearingless motor technology, designed to provide acute surgical support to pediatric patients. The brand names differ according to indication for use, duration of support, and regulatory approval. PediMag is cleared by the FDA for use, in conjunction with the CentriMag console and motor, for support periods of up to six hours. Outside the U.S., the device is branded as PediVAS. This device has CE Mark to provide support for up to 30 days for both cardiac and respiratory failure.

PVAD

PVAD is an external, pulsatile, VAD, FDA approved for BTT, including home discharge and post-cardiotomy myocardial recovery and provides left, right, and biventricular MCS. PVAD is a paracorporeal device that is less invasive than implantable VADs since only the cannula is implanted. The paracorporeal nature of PVAD provides several benefits including shorter implantation times (approximately two hours) and the ability to use the device in smaller patients.

A pneumatic power source drives PVAD. It is designed for short-to-intermediate duration for post-cardiotomy myocardial recovery following cardiac surgery and BTT. PVAD and IVAD, described below, offer left, right or biventricular support for use for BTT. This characteristic is significant because the vast majority of BTT patients treated with PVAD and IVAD require right as well as left-side ventricular assistance. PVAD and IVAD are also the only devices approved for both BTT and recovery following cardiac surgery. PVAD incorporates our proprietary biomaterial, Thoralon, which has excellent tissue and blood compatibility and is resistant to blood clots.

PVAD received FDA approval for BTT in December 1995 and for recovery (post-cardiotomy) in May 1998. In June 1998, PVAD received CE Mark approval, allowing for its commercial sale in Europe.

IVAD

IVAD is an implantable, pulsatile, VAD, FDA approved for BTT, including home discharge, and post-cardiotomy myocardial recovery and provides left, right or biventricular MCS. IVAD maintains the same blood flow path, valves and blood pumping mechanism as PVAD, but has an outer housing made of a titanium alloy that makes it suitable for implantation.

IVAD received FDA approval for BTT and recovery (post-cardiotomy) in August 2004. In June 2003, the IVAD received CE Mark approval, allowing for its commercial sale in Europe.

Discontinued Operations—International Technidyne Corporation

On November 4, 2010, we sold our wholly owned subsidiary, International Technidyne Corporation ("ITC"), to ITC Nexus Holding Company, Inc. ("Nexus") for $55 million in cash pursuant to a Stock Purchase Agreement, dated as of November 4, 2010, by and between the Company and Nexus. For the period ended December 31, 2011, we recorded net loss of $1.0 million less tax benefit of $0.8 million for ITC primarily related to post-close severance payments.

The ITC division has been reclassified to discontinued operations in the consolidated financial statements.

Critical Accounting Policies and Estimates

We have adopted various accounting policies to prepare the consolidated financial statements in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP"). The preparation of the consolidated financial statements, in conformity with U.S. GAAP, requires us to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes.

Our estimates and assumptions, including those related to bad debts, inventories, goodwill and intangible assets, long-lived asset impairments, warranty provisions, contingent consideration, income taxes, and share-based compensation, are updated as appropriate, on an on-going basis. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. There can be no assurance that actual results will not differ from those estimates and assumptions. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We recognize revenue from product sales to customers when persuasive evidence of an arrangement exists, the product has been delivered or service has been performed, the selling price is fixed or determinable, and collection is reasonably assured and there are no further obligations to customers. Delivery of the product is considered to have occurred when shipped. Sales from products are not subject to rights of return and, historically, actual sales returns have not been significant. We sell products through our direct sales force and through distributors. Sales through distributors are recognized as revenue upon sale to the distributor as these sales are considered to be final and no right of return or price protection exists.We recognize sales of certain products to first-time customers when it has been determined that the customer has the ability to use the products.

Reserves on Accounts Receivable, Inventory and Warranty

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to pay amounts due. The allowance for doubtful accounts is management's best estimate of the amount of probable credit losses in existing accounts receivable. We determine the allowance based on specific identification and historical write-off experience. Past due balances are reviewed individually for collectability. Account balances are charged off against the allowance when we believe it is probable the receivable will not be recovered.

Estimated excess and obsolete inventory charges are recorded when inventory levels exceed projected sales volume. In determining the excess obsolete charges, management makes judgments and estimates on matters such as forecasted sales volume. Actual sales volume may differ from forecasted sales volume and such differences may have a material effect on

recorded inventory values. Based on management's estimate, adjustments to reduce the cost of inventory to its net realizable value, if required, are made for estimated excess or obsolete inventory.

The sales of our products generally include a limited one-year warranty on product quality. The estimated cost of product warranty claims is accrued at the time the sale is recognized, based on historical experience. While we believe that historical experience provides a reliable basis for estimating such warranty cost, unforeseen quality issues or component failure rates could result in future costs in excess of such estimates, or alternatively, improved quality and reliability in our products could result in actual expenses that are below those currently estimated.

Long-Lived Assets, Intangible Assets and Goodwill

We evaluate the carrying value of long-lived assets, including purchased intangible assets, whenever events, changes in business circumstances or our planned use of long-lived assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. If these facts and circumstances exist, we assess for recovery by comparing the carrying values of long-lived assets with their future undiscounted net cash flows. If the comparison indicates that impairment exists, long-lived assets are written down to their respective fair value based on discounted cash flows. Significant management judgment is required in the forecast of future operating results that are used in the preparation of expected undiscounted cash flows. Product sales from our PVAD and IVAD product lines, collectively known as the Thoratec product line, were $29.5 million and $28.1 million in fiscals 2010 and 2011, respectively, and significantly declined to $19.0 million in fiscal 2012 as a result of recent changes in the market in which these products compete. Accordingly, we assessed for recovery the associated purchased intangible assets with their future undiscounted net cash flows in the fourth quarter of 2012. The comparison resulted in the existence of impairment, and accordingly the purchased intangible assets were written down to the fair value totaling $12.6 million, resulting in an impairment charge of $50.2 million.

We test goodwill for impairment on an annual basis in the fourth quarter of each fiscal year or more frequently if we believe indicators of impairment exist. The performance of the test involves a two-step process. The first step requires comparing the fair value of the reporting unit to its net book value, including goodwill. A potential impairment exists if the fair value of the reporting unit is lower than its net book value. The second step of the process is only performed if a potential impairment exists, and it involves comparing the aggregate fair value of the reporting unit's net assets other than goodwill to the fair value of the reporting unit as a whole. Goodwill is considered impaired, and an impairment charge is recorded, if the excess of the fair value of the reporting unit over the fair value of the net assets is less than the carrying value of goodwill.

Contingent Consideration

On August 3, 2011, we acquired 100% of Levitronix Medical for an upfront cash payment of $110.0 million, plus additional cash earn-out amounts (not to exceed $40.0 million in aggregate). The earn out ("contingent consideration") is calculated based on 36% of sales from Levitronix Medical in excess of sales of approximately $24.0 million per year over the next four years commencing from the date of acquisition. The fair value of the contingent consideration is calculated using the income approach, utilizing various revenue assumptions and applying a probability to each outcome. By applying this method, the estimated undiscounted range of outcomes was from $9.7 million to $37.4 million. The fair value of the contingent consideration as of the acquisition date was estimated and recorded at $23.6 million. The fair value of the contingent consideration is remeasured at the estimated fair value at each reporting period with the change in fair value recorded within operating expense within our consolidated statements of operations. Actual amounts paid may differ from the obligations recorded. In 2012, we paid $1.5 million of the contingent consideration. As of December 29, 2012, the estimated fair value of the remaining contingent consideration was $22.1 million.

Income Taxes

As part of the process of preparing the consolidated financial statements, we estimate income taxes in each jurisdiction in which we operate. The determination of our tax provision is subject to judgments and estimates due to the complexity of the tax laws that we are subject to in several tax jurisdictions. This process involves our estimate of our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items, such as depreciation, amortization and inventory reserves for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheets.

We account for income taxes in accordance with the accounting standards for income taxes, which require that deferred tax assets and liabilities be recognized for the effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. These accounting standards

also require that deferred tax assets be reduced by a valuation allowance if it is more likely than not that some or all of the deferred tax asset will not be realized.

We account for uncertainty in income taxes recognized in the consolidated financial statements based on accounting standards that 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. As a result, we recognize the tax liability for uncertain income tax positions on the income tax return based on the two-step process prescribed in the standards. The first step is to determine whether it is more likely than not that each income tax position would be sustained upon audit. The second step is to estimate and measure the tax benefit as the amount that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authority. Estimating these amounts requires us to determine the probability of various possible outcomes. We evaluate these uncertain tax positions on a quarterly basis. This evaluation is based on the consideration of several factors, including changes in facts or circumstances, changes in applicable tax law, settlement of issues under audit, and new exposures. If we later determine that the exposure is lower or that the liability is not sufficient to cover our revised expectations, we will adjust the liability and effect a related change in tax provision during the period in which we make such determination.

Valuation of Share-Based Awards

We account for share-based compensation costs in accordance with the accounting standards for share-based compensation, which requires that all share-based payments to employees be recognized in the statements of operations based on their fair values. The fair value of each option on the date of grant is estimated using the Black-Scholes option-pricing model using the single option approach. We recognize the expense ratably on a straight-line basis over the requisite service period. The share-based compensation expense recognized in the consolidated statements of operations is based on awards that ultimately are expected to vest; therefore, the amount of expense has been reduced for estimated forfeitures. The accounting standards require forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on historical experience. In addition, expected volatility is based on a combination of historical volatility trends and market-based implied volatility. If actual results differ significantly from these estimates, share-based compensation expense and our results of operations could be materially impacted. In addition, if we employ different assumptions in the application of this accounting standard, the compensation expense that we record in the future periods may differ significantly from what we have recorded in the current period.

Fair Value of Financial Instruments

We measure certain financial assets and liabilities at fair value based on valuation techniques using the best information available, which may include quoted market prices, market comparables and discounted cash flow projections. Financial instruments are primarily comprised of money market funds, certificate of deposits, municipal and corporate bonds, commercial paper, variable demand notes, auction rate securities, derivative contracts, certain investments held as assets under the deferred compensation plan, and marketable equity securities.

Cash equivalents and investments: in general, we use quoted prices in active markets for identical assets to determine fair value. If quoted prices in active markets for identical assets are not available to determine fair value, then we use quoted prices for similar assets and liabilities or inputs that are observable either directly or indirectly. If quoted prices for identical or similar assets are not available, we use internally developed valuation models, whose inputs are unobservable data points that are not corroborated by market data.

Derivative Instruments: We hold non-speculative foreign currency forwards to hedge certain foreign currency exposures. We use internally developed valuation models that project future cash flows and discount the future amounts to present value using significant market-based observable inputs including interest rate curves, foreign exchange rates, and forward and spot prices for currencies.

Results of Operations

The following table summarizes our consolidated statements of income for the last three fiscal years with each line item shown as a percentage of total product sales.

	Fiscal Years		
	2012	2011	2010
Product sales	100.0 %	100.0 %	100.0 %
Cost of product sales, excluding impairment of intangible assets	30.5	32.0	34.6
Impairment of intangible assets	10.2	—	—
Gross margin	59.3	68.0	65.4
Operating expenses:			
Selling, general and administrative	26.0	25.4	23.5
Research and development	17.9	15.7	15.4
Total operating expenses	43.9	41.1	38.9
Income from operations	15.4	27.0	26.5
Other income (expense):			
Interest expense	—	(1.1)	(3.2)
Interest income and other	0.3	0.6	1.4
Impairment on investment	—	—	(0.5)
Income before taxes	15.7	26.5	24.2
Income tax expense	4.3	9.3	8.8
Net income from continuing operations	11.4	17.2	15.4
Net loss from discontinued operations	—	(0.2)	(1.5)
Net income	11.4%	17.0%	13.9%

Continuing Operations

Product Sales

Product sales consisted of the following:

	Fiscal Years			Annual Percentage Change	
	2012	2011	2010	2012/2011	2011/2010
	(in thousands, except percentages)				
Product sales	$491,654	$422,713	$382,973	16.3%	10.4%

In 2012 as compared to 2011, product sales increased $68.9 million, or 16.3%, driven by strong sales volume of our HeartMate and CentriMag products. The HeartMate units grew 18.6% contributing $68.2 million to the increase, primarily driven by Destination Therapy patient implants, which accounted for approximately 50% of our U.S. volume. CentriMag and PediMag product lines contributed $10.0 million to the increase, primarily attributable to the incremental revenues of $6.1 million related to the Levitronix Medical acquisition. The increase was partially offset by a significant decline of $9.1 million in sales of the Thoratec product line. From a regional perspective, U.S. sales contributed approximately $53.0 million to the increase, while international sales contributed approximately $16.0 million. In the U.S., 15 HeartMate II centers were added during 2012 bringing the total to 164 centers. Internationally, we added 15 centers in 2012, bringing the total to 159 centers.

In 2011 as compared to 2010, product sales increased $39.7 million, or 10.4%, driven by strong sales volume of HeartMate and CentriMag products. The HeartMate product line contributed approximately $33.2 million to the increase, while CentriMag contributed approximately $8.0 million, partially attributable to the Levitronix Medical acquisition completed in August 2011, which added $4.1 million from the date of the acquisition through December 31, 2011. The increase was partially offset by a decline of approximately $1.3 million in sales of the Thoratec product line. The remaining $0.2 million decrease was due to decline of other products. From a regional perspective, U.S. sales contributed approximately $30.3 million to the increase, while international sales contributed approximately $9.4 million. In the U.S., 19 HeartMate II centers were added during 2011 bringing the total to 149 centers. Internationally, we added 20 centers in 2011, bringing the total to 144 centers.

Sales originating outside of the U.S. and U.S. export sales accounted for approximately 19%, 18% and 17% of our total product sales in fiscal 2012, 2011 and 2010, respectively.

Gross Profit

	Fiscal Years		
	2012	2011	2010
	(in thousands, except percentages)		
Total gross profit	$291,375	$287,651	$250,539
Total gross margin	59.3%	68.0%	65.4%

In 2012 as compared to 2011, the gross margin decreased 10.2 percentage points due to the impairment recorded in 2012 related to PVAD and IVAD intangible assets. Product sales from our PVAD and IVAD product lines, collectively known as the Thoratec product line were $29.5 million and $28.1 million in fiscals 2010 and 2011, respectively, and significantly declined to $19.0 million in fiscal 2012 as a result of recent changes in the market in which these products compete. Accordingly, we assessed for recovery the associated purchased intangible assets with their future undiscounted net cash flows in the fourth quarter of 2012. The comparison resulted in the existence of impairment, and accordingly the purchased intangible assets were written down to the fair value totaling $12.6 million, resulting in an impairment charge of $50.2 million. This was in part offset by a 1.5 percentage point increase in gross margin due to volume-based efficiencies, favorable product mix, and the contribution from the acquisition of Levitronix Medical in August 2011.

In 2011 as compared to 2010, the gross margin increased 2.6 percentage points primarily due to favorable pump to non-pump mix, favorable foreign exchange rate changes, volume-based effectiveness, lower inventory write downs, and lower warranty expenses in 2011, which were partially offset by the fair value inventory adjustment related to the Levitronix Medical acquisition.

Selling, General and Administrative

	Fiscal Years			Annual Percentage Change	
	2012	2011	2010	2012/2011	2011/2010
	(in thousands, except percentages)				
Total selling, general and administrative expenses	$127,984	$107,177	$90,269	19.4%	18.7%

Selling, general and administrative (SG&A) expenses as a percentage of product sales were approximately 26.0%, 25.4%, and 23.5% in 2012, 2011, and 2010, respectively. In 2012 as compared to 2011, SG&A costs increased by 19.4% primarily related to spending on market and referral development initiatives that include sales force expansion, and higher incentive and stock-based compensation costs. This was partially offset by transaction costs recorded in 2011 related to the Levitronix acquisition.

In 2011 as compared to 2010, SG&A costs increased by 18.7% primarily due to market development initiatives including sales force expansion, increased travel and other selling expenses, which were attributed to the higher product sales, and intangible assets amortization in connection with the acquisition of Levitronix Medical in August 2011. Levitronix Medical acquisition-related transaction costs of $3.6 million also contributed to the increase in 2011 over the prior year.

Research and Development

	Fiscal Years			Annual Percentage Change	
	2012	2011	2010	2012/2011	2011/2010
	(in thousands, except percentages)				
Total research and development expenses	$87,729	$66,314	$58,831	32.3%	12.7%

Research and development (R&D) expenses as a percentage of product sales were approximately 17.8%, 15.7%, and 15.4% in fiscal 2012, fiscal 2011, and fiscal 2010, respectively. In 2012 as compared to 2011, R&D expenses increased by 32.3% primarily due to an increase in headcount and costs associated with the development of our fully implantable systems, HeartMate III, PHP, and HeartMate II peripheral enhancements, as well as HMII post market study costs and higher incentive and stock-based compensation costs.

In 2011 as compared to 2010, R&D expenses increased by 12.7% due to next generation product development costs for HeartMate X, HeartMate III, PHP, HeartMate II peripheral enhancements, and incremental R&D activities in connection with the Levitronix Medical acquisition.

Interest Expense

Interest expense primarily relates to cash and non-cash interest cost on the senior subordinated convertible notes as follows:

	Fiscal Years			Annual Percentage Change	
	2012	2011	2010	2012/2011	2011/2010
	(in thousands, except percentages)				
Interest expense	$3	$4,500	$11,813	(99.9)%	(61.9)%
Amortization of debt issuance costs related to senior subordinated convertible notes	—	151	414	(100.0)%	(63.5)%
Loss on extinguishment of senior subordinated convertible notes	—	—	100	*	*
Total interest expense	$3	$4,651	$12,327		

* Not meaningful

Interest expense is comprised primarily of interest expense on the senior subordinated convertible notes. In May 2011, all remaining senior subordinated convertible notes were extinguished.

In 2010, we recorded a loss on extinguishment of debt of $0.1 million from the conversion of 4,045 senior subordinated convertible notes.

Interest Income and Other

Interest income and other consisted of the following:

	Fiscal Years			Annual Percentage Change	
	2012	2011	2010	2012/2011	2011/2010
	(in thousands, except percentages)				
Interest income	$1,183	$2,473	$5,133	(52.2)%	(51.9)%
Foreign currency, net	126	(353)	(17)	*	*
Other	349	242	319	44.2%	(24.1)%
Total interest income and other	$1,658	$2,362	$5,435		

* Not meaningful.

Interest income decreased by $1.3 million in 2012 from 2011 primarily due to lower average cash, cash equivalents and investment balances in 2012, combined with lower interest rates and yields on the investments.

Interest income decreased by $2.7 million in 2011 from 2010 primarily due to lower cash, cash equivalents and investment balances, combined with lower interest rates and yields on the investments. The lower cash, cash equivalents and investment balances were due to the use of $164.4 million in cash during 2011 to extinguish the senior subordinated convertible notes, acquire Levitronix Medical for $110 million, and the repurchase of approximately $100 million of common stock in 2011.

Impairment on Investment

In 2010 we recorded an impairment charge of $2.0 million for our entire investment in Acorn Cardiovascular, Inc., a start-up medical device company. The impairment charge was included in “Other income (expense)” in the consolidated statement of operations.

Income Taxes

Our effective tax rate was 27.4% in 2012 compared to 35.1% in 2011. The decrease in the annual effective tax rate of 7.7 percentage points was primarily due to the higher proportionate impact of permanent differences as a result of lower pre-tax income and a greater percentage of earnings generated in lower-tax jurisdictions. The effect of these factors was partially offset by the delay in the passage of the American Taxpayer Relief Act of 2012, which prevented us from recognizing federal research and development credit benefits in 2012.

On January 2, 2013, the President signed into law The American Taxpayer Relief Act of 2012. The 2012 Taxpayer Relief Act extends the research tax credit for two years to December 31, 2013. The extension of the research tax credit is retroactive and includes amounts paid or incurred after December 31, 2011. As a result of the enactment after the Company's 2012 year end, we expect to recognize a benefit of approximately $1.2 million for qualifying amounts incurred in 2012. The benefit will be recognized in the period of enactment, which is the first quarter of 2013.

Our effective tax rate was 35.1% in 2011 compared to 36.2% in 2010. This decrease in the annual effective tax rate of 1.1 percentage points was primarily due to a one-time reversal of tax reserves related to California research and development credit, valuation allowance recorded in 2010, and favorable return to provision adjustments. The effect of these factors was partially offset by lower tax-exempt income and the write-off of certain U.S. deferred tax assets in 2011.

Discontinued Operations

We incurred a loss of $1.0 million in 2011 from discontinued operations as compared to a loss of $5.8 million during 2010. During 2011 we recorded a charge of $1.0 million ($1.8 million net loss, less an income tax benefit of $0.8 million) for ITC primarily related to post-close severance payments. In addition, we recorded a loss from the sale of ITC of $0.6 million in the 2010 period.

Liquidity and Capital Resources

Cash, Cash Equivalents and Investments

Consolidated working capital was $328.4 million as of December 29, 2012, compared with $294.0 million as of December 31, 2011. Included in working capital were cash, cash equivalents and short-term investments of $249.7 million at December 29, 2012 compared to $193.4 million as of December 31, 2011.

Our cash, cash equivalents and investments balance is as follows:

	December 29, 2012	December 31, 2011	January 1, 2011
		(in thousands)	
Cash and cash equivalents	$101,322	$42,661	$56,887
Short-term available-for-sale investments	148,426	150,753	391,256
Long-term available-for-sale investments	10,607	16,090	21,379
Total cash and equivalents and available-for-sale investments	$260,355	$209,504	$469,522

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.

Cash Flow Activities

Following is a summary of our cash flow from operating, investing and financing activities:

	Fiscal Years		
	2012	2011	2010
		(in thousands)	
Cash provided by operating activities	$139,538	$110,711	$74,342
Cash provided by (used in) investing activities	(11,043)	126,267	(69,209)
Cash (used in) provided by financing activities	(70,192)	(252,051)	24,086
Effect of exchange rate changes on cash and cash equivalents	358	847	(119)
Net increase (decrease) in cash and cash equivalents	$58,661	$(14,226)	$29,100

Cash Provided by Operating Activities

In 2012, cash provided by operating activities was $139.5 million consisting primarily of net income from continuing operations of $56.2 million and adjustments for non-cash items consisting of $19.7 million from depreciation and amortization, $50.2 million related to the impairment of purchased intangible assets, $21.7 million related to share-based compensation expenses, and a $3.4 million tax benefit related to the exercise of stock options. These non-cash contributions were partially offset by the decrease from excess tax benefits from share-based compensation of $3.2 million and the decrease of $27.3 million in our net deferred tax liability primarily related to the impairment of the purchased intangible assets discussed above. Changes in assets and liabilities provided additional cash of $17.0 million primarily due to the increase in accounts payable due to higher volume and higher incentive compensation as well as a decrease in inventory, offset by an increase in account receivables in the current year.

In 2011, cash provided by operating activities was $110.7 million consisting primarily of net income from continuing operations of $72.6 million and adjustments for non-cash expenses relating to depreciation and amortization, including the amortization of intangible assets obtained from the Levitronix Medical acquisition. In addition, $2.8 million of non-cash interest expense and other, $16.1 million related to share-based compensation expenses, $1.8 million of tax benefit related to the exercise of stock options also contributed to the increase in cash provided by operating activities. These non-cash contributions were partially offset by a decrease of $1.7 million related to excess tax benefits from share-based compensation and a decrease of $3.1 million in our net deferred tax liability. Changes in assets and liabilities used additional cash of $0.4 million primarily due to the increase in inventory in anticipation of higher product sales, offset by a decrease in prepaid expenses and other assets, accounts payable due to timing of payments, accrued liabilities from the reduction in variable compensation related accrual, and lower income tax payable in the current year.

Cash (Used in) Provided by Investing Activities

In 2012, cash used in investing activities was $11.0 million, as net sales and maturity of investments of $183.8 million, partially offset by the purchase of investments of $181.0 million, the use of $3.1 million for an acquisition of a business and $10.7 million for purchases of property, plant and equipment. The purchases of property, plant and equipment, related to leasehold improvements, furniture and fixtures, and equipment purchases to support our manufacturing facilities and administration growth.

In 2011, cash provided by investing activities was $126.3 million, as net sales and maturity of investments of $524.3 million were partially offset by the purchase of investments of $281.8 million, $110.0 million cash payment to acquire Levitronix Medical, and purchases of property, plant and equipment of $6.2 million. The purchases of property, plant and equipment, related to leasehold improvements, furniture and fixtures, and equipment purchases to support our manufacturing facilities and administration growth.

Cash Used in Financing Activities

In 2012, cash used in financing activities was $70.2 million, which was primarily comprised of $80.4 million used for repurchases of 1.8 million shares of our common stock under the stock repurchase programs authorized, $5.1 million used to repurchase vested restricted stock units and awards for settlement of income tax withholding liabilities, and the payment of contingent consideration of $1.5 million. These uses were partially offset by proceeds of $10.1 million related to stock option exercises, $3.5 million proceeds from stock issued under the employee stock purchase plan, and $3.2 million from excess tax benefits for share-based compensation.

In 2011, cash used in financing activities was $252.1 million, which was primarily comprised of $164.4 million used to extinguish the senior subordinated convertible notes, $100.0 million used for repurchases of 3.5 million shares of our common stock under the stock repurchase program authorized, and $3.9 million used to repurchase vested restricted stock units and awards for settlement of income tax withholding liabilities. These uses were partially offset by proceeds of $11.5 million related to stock option exercises, $3.1 million proceeds from stock issued under the employee stock purchase plan, and $1.7 million from excess tax benefits for share-based compensation.

Stock Repurchase Program

On November 26, 2012, our Board of Directors authorized the repurchase of up to $150 million of the Company's shares of common stock. As part of the authorization, the Company entered into an Accelerated Share Repurchase (ASR) agreement with J.P. Morgan, under which we agreed to repurchase an aggregate of $75.0 million of our common stock. Under the ASR Program, we paid $75.0 million and received an initial delivery of approximately 1.5 million shares, which represented 75% of the ASR Program's value at a price of $38.03 per share at the inception of the program. Shares representing the remaining 25% of the ASR Program's value will be delivered at maturity date of the program, which can be up to 4.5 months from the inception of the program, with the final number of shares to be repurchased based on the volume-weighted average price of our common stock during the repurchase period, less an agreed upon discount and adjusted for the initial share delivery. Under the terms of the ASR Program, at settlement, we could either receive additional shares from the counterparty or be required to deliver additional shares or cash, at our option, to the counterparty. The total number of shares ultimately repurchased will not be known until the calculation period ends and a final settlement occurs. As of December 29, 2012, $75.0 million is available for repurchases of shares of our common stock under the November 2012 program.

The ASR Program was accounted for as two separate transactions: (i) as shares of common stock acquired in a share repurchase transaction and (ii) as a forward contract indexed to our own common stock. The initial delivery of shares resulted in an immediate reduction of the outstanding shares used to calculate the weighted-average common shares outstanding for basic and diluted net earnings per share from the effective date of the ASR Program. We have determined that the forward contract indexed to our common stock met all of the applicable criteria for equity classification.

On November 7, 2011 we announced that our Board of Directors had authorized the repurchase of up to $50 million worth of shares of our common stock. Additionally, the Board of Directors extended the expiration date for the $50 million remaining under the $100 million share repurchase program authorized by our Board of Directors on February 14, 2011 program ("February 2011 program") to November 4, 2012. During 2012, under this program and the November 2011 program, we paid an additional $5.4 million to repurchase 168,509 shares of our common stock. In each case, the repurchase of shares of our common stock under these programs has reduced the number of shares of our common stock. As of December 29, 2012, both of these programs had expired.

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 and automatically renews for a 12 month period on June 30th of each year, unless terminated by one of the parties. As of December 29, 2012, our Letter of Credit balance was approximately $0.8 million.

Credit Facility

On December 19, 2011, we obtained an unsecured revolving credit facility that provides for up to $50 million revolving credit that will expire on December 19, 2016. The interest rate charged on the amounts borrowed is LIBOR plus a margin (ranging from 0.75% to 1.25%). The agreement contains financial covenants. We were in compliance with all covenants as of December 29, 2012. The credit agreement permits us to use the facility for working capital and general corporate purposes. As of December 29, 2012, there were no borrowings under the revolver.

Contractual Obligations

As of December 29, 2012, we had the following contractual obligations:

	Total	2013	2014	2015	2016	2017	Thereafter
				(in millions)			
Operating lease obligations(a)	$23.5	$2.7	$2.2	$1.9	$1.8	$1.5	$13.4
Deferred compensation obligations(b)	4.4	4.4	—	—	—	—	—
Purchase obligations(c)	85.2	61.0	3.8	4.0	4.3	4.5	7.6
Total	$113.1	$68.1	$6.0	$5.9	$6.1	$6.0	$21.0

(a) Our operating lease obligations of $23.5 million are comprised primarily of our various U.S. and Switzerland leased facilities.

(b) Our deferred compensation obligations of $4.4 million are comprised of future distributions to plan participants.

(c) Our purchase obligations include $59.1 million for open purchase orders and $26.1 million of supply agreements in effect at December 29, 2012.

As of December 29, 2012, the liability for uncertain tax positions was $10.4 million including interest and penalties. Due to the high degree of uncertainty regarding the timing of potential future cash flows associated with these liabilities, we are unable to make a reasonably reliable estimate of the amount and period in which these liabilities might be paid.

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

Interest Rate Risk

Our investment portfolio and cash equivalents that bear variable interest would have an immaterial impact to interest income, on the consolidated statements of operations, if interest rates would have fallen by 50 basis points. In addition, if interest rates rise, the market value of our investment portfolio may decline, which could result in a loss if we choose or are forced to sell an investment before its scheduled maturity. If interest rates were to rise or fall from current levels by 100 basis points, the change in our net unrealized loss on our short and long-term investments would be $1.0 million. We do not utilize derivative financial instruments to manage interest rate risks.

Foreign Currency Rate Fluctuations

The fair value of forward currency-exchange contracts is sensitive to changes in currency exchange rates and is estimated based on the amount that we would pay or receive upon termination of the contract, taking into account the change in currency exchange rates. A 10% change in the non-functional currency exchange rates as of December 29, 2012 related to our contracts would result in an increase in the unrealized gain or loss on forward currency-exchange contracts of $10.0 million. The unrealized gains or losses on forward currency-exchange contracts resulting from changes in currency exchange rates are expected to approximately offset losses or gains on the currency exposures resulting from our operations.

Item 8. ***Financial Statements and Supplementary Data***

THORATEC CORPORATION

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Thoratec Corporation
Pleasanton, California

We have audited the accompanying consolidated balance sheets of Thoratec Corporation and subsidiaries (the "Company") as of December 29, 2012 and December 31, 2011, and the related consolidated statements of operations, comprehensive income, shareholders' equity, and cash flows for each of the three fiscal years in the period ended December 29, 2012. Our audits also included the consolidated financial statement schedule listed in the Index 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 29, 2012 and December 31, 2011, and the results of their operations and their cash flows for each of the three fiscal years in the period ended December 29, 2012, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such consolidated financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 29, 2012, 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 February 20, 2013 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
February 20, 2013

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Thoratec Corporation
Pleasanton, California

We have audited the internal control over financial reporting of Thoratec Corporation and its subsidiaries (the "Company") as of December 29, 2012, based on 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, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on 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, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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, the Company maintained, in all material respects, effective internal control over financial reporting as of December 29, 2012, 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 consolidated financial statement schedule as of and for the fiscal year ended December 29, 2012 of the Company and our report dated February 20, 2013 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
February 20, 2013

THORATEC CORPORATION

CONSOLIDATED BALANCE SHEETS

(In thousands)

	December 29, 2012	December 31, 2011
ASSETS		
Current assets:		
Cash and cash equivalents	$101,322	$42,661
Short-term available-for-sale investments	148,426	150,753
Receivables, net of allowances of $2,127 in 2012 and $2,153 in 2011	70,471	59,292
Inventories	47,100	55,691
Deferred tax assets	10,626	10,116
Income tax receivable	11,950	12,112
Prepaid expenses and other assets	7,162	6,640
Total current assets	397,057	337,265
Property, plant and equipment, net	45,892	38,928
Goodwill	194,182	191,193
Purchased intangible assets, net	33,571	92,279
Long-term available-for-sale investments	10,607	16,090
Other long-term assets	17,055	5,233
Total Assets	$698,364	$680,988
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$19,959	$12,559
Accrued compensation	25,409	15,739
Contingent liabilities, current portion	4,220	1,518
Other accrued liabilities	19,098	13,418
Total current liabilities	68,686	43,234
Long-term deferred tax liability	2,780	20,429
Other long-term liabilities	12,323	10,823
Contingent liabilities, non-current portion (Notes 2 and 7)	17,832	22,052
Total Liabilities	101,621	96,538
Commitments and contingencies (Note 7)		
Shareholders' equity:		
Common shares: no par, authorized 100,000; issued and outstanding 57,584 in 2012 and 58,368 in 2011	—	—
Additional paid-in-capital	577,448	578,293
Retained earnings	34,364	24,190
Accumulated other comprehensive loss:		
Unrealized loss on investments	(1,141)	(1,664)
Cumulative translation adjustments	(13,928)	(16,369)
Total accumulated other comprehensive loss	(15,069)	(18,033)
Total Shareholders' Equity	596,743	584,450
Total Liabilities and Shareholders' Equity	$698,364	$680,988

See notes to consolidated financial statements

THORATEC CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	Fiscal Years		
	2012	**2011**	**2010**
Product sales	$491,654	$422,713	$382,973
Cost of product sales, excluding impairment of intangible assets	150,037	135,062	132,434
Impairment of intangible assets	50,242	—	—
Gross profit	291,375	287,651	250,539
Operating expenses:			
Selling, general and administrative	127,984	107,177	90,269
Research and development	87,729	66,314	58,831
Total operating expenses	215,713	173,491	149,100
Income from operations	75,662	114,160	101,439
Other income (expense):			
Interest expense	(3)	(4,651)	(12,327)
Interest income and other	1,658	2,362	5,435
Impairment on investment	—	—	(2,000)
Income before taxes	77,317	111,871	92,547
Income tax expense	21,154	39,296	33,542
Net income from continuing operations	56,163	72,575	59,005
Net loss from discontinued operations	—	(1,031)	(5,839)
Net income	$56,163	$71,544	$53,166
Net income (loss) per common share—Basic:			
Continuing operations	$0.96	$1.23	$1.02
Discontinued operations	—	$(0.02)	$(0.10)
Net income	$0.96	$1.21	$0.92
Net income (loss) per common share—Diluted:			
Continuing operations	$0.94	$1.20	$0.99
Discontinued operations	—	$(0.01)	$(0.10)
Net income	$0.94	$1.19	$0.89
Shares used to compute net income per common share:			
Basic	58,563	58,777	57,670
Diluted	59,580	62,524	59,071

See notes to consolidated financial statements

THORATEC CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)

	Fiscal Years		
	2012	**2011**	**2010**
Net income	$56,163	$71,544	$53,166
Unrealized gains (losses) on investments (net of taxes of $445, $3, $625, for 2012, 2011 and 2010, respectively)	523	(4)	(1,012)
Foreign currency translation adjustments (net of taxes of $926, $5,526, $0 for 2012, 2011, and 2010, respectively)	2,441	(14,004)	(1,044)
Total other comprehensive income (loss)	2,964	(14,008)	(2,056)
Comprehensive income	$59,127	$57,536	$51,110

See notes to consolidated financial statements

THORATEC CORPORATION

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In thousands)

	Common Shares	Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
BALANCE, JANUARY 2, 2010	57,043	$557,418	$(30,321)	$(1,969)	$525,128
Exercise of common stock options for cash	1,430	22,840			22,840
Issuance of common shares under Employee Stock Purchase Plan	140	3,431			3,431
Issuance of restricted stock units	250				—
Tax benefit related to employees' and directors' stock plans		11,235			11,235
Repurchase of common shares, net	(292)	(2,046)	(4,242)		(6,288)
Share-based compensation		17,025			17,025
Senior subordinated convertible notes extinguished		(3,121)			(3,121)
Unrealized loss on available-for-sale investments (net of taxes of $625)				(1,012)	(1,012)
Foreign currency translation adjustment				(1,044)	(1,044)
Net income			53,166		53,166
BALANCE, JANUARY 1, 2011	58,571	$606,782	$18,603	$(4,025)	$621,360
Exercise of common stock options for cash	687	11,486			11,486
Issuance of common shares under Employee Stock Purchase Plan	118	3,112			3,112
Issuance of restricted stock units	209				—
Tax benefit related to employees' and directors' stock plans		1,767			1,767
Repurchase of common shares, net	(3,615)	(37,925)	(65,957)		(103,882)
Share-based compensation		16,101			16,101
Issuance of common shares in connection with redemption and conversion of senior subordinated convertible notes	2,398	82,711			82,711
Reacquisition of equity component of senior subordinated convertible notes		(105,741)			(105,741)
Unrealized loss on available-for-sale investments (net of taxes of $3)				(4)	(4)
Foreign currency translation adjustment (net of tax of $5,526)				(14,004)	(14,004)
Net income			71,544		71,544
BALANCE, DECEMBER 31, 2011	58,368	$578,293	$24,190	$(18,033)	$584,450
Exercise of common stock options for cash	566	10,067			10,067
Issuance of common shares under Employee Stock Purchase Plan	119	3,508			3,508
Issuance of restricted stock units	327				—
Tax benefit related to employees' and directors' stock plans		3,388			3,388
Repurchase of common shares, net	(1,796)	(20,759)	(45,989)		(66,748)
Equity forward contract		(18,750)			(18,750)
Share-based compensation		21,701			21,701
Unrealized gain on available-for-sale investments (net of taxes of $445)				523	523
Foreign currency translation adjustment (net of tax of $926)				2,441	2,441
Net income			56,163		56,163
BALANCE, DECEMBER 29, 2012	57,584	$577,448	$34,364	$(15,069)	$596,743

See notes to consolidated financial statements

THORATEC CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Fiscal Years		
	2012	2011	2010
Cash flows from continuing operating activities:			
Net Income	$56,163	$71,544	$53,166
Add back: loss from discontinued operations	—	1,031	5,839
Net income from continuing operations	56,163	72,575	59,005
Adjustments to reconcile net income from continuing operations to net cash provided by operating activities:			
Depreciation and amortization	19,688	18,235	16,503
Impairment of intangible assets	50,242	—	—
Investment premium amortization, net	2,209	3,505	5,135
Allowance (benefit) for bad debt	(92)	1,085	—
Loss on extinguishment of senior subordinated convertible notes	—	—	99
Non-cash interest income (expense) and other	(435)	269	395
Non-cash interest expense	—	2,815	8,420
Write-down on investment	—	—	2,000
Tax benefit related to stock options	3,388	1,767	11,235
Share-based compensation expense	21,692	16,062	12,654
Excess tax benefits from share-based compensation	(3,249)	(1,662)	(9,462)
Loss on disposal of assets	180	127	533
Change in deferred taxes, net	(27,277)	(3,073)	(7,981)
Changes in assets and liabilities (net of acquisition of business):			
Receivables	(10,692)	(1,480)	(10,375)
Inventories	5,201	6,660	(18,929)
Other current and non-current assets	(302)	(2,108)	(954)
Accounts payable	6,343	(1,602)	7,336
Income taxes, net	2,243	4,828	(9,268)
Other current and non-current liabilities	14,236	(5,894)	7,639
Operating cash flows provided by continuing operations	139,538	112,109	73,985
Operating cash flows (used in) provided by discontinued operations	—	(1,398)	357
Cash provided by operating activities	139,538	110,711	74,342
Cash flows from continuing investing activities:			
Purchases of available-for-sale investments	(181,045)	(281,832)	(572,252)
Sales and maturities of available-for-sale investments	183,767	524,287	456,653
Acquisition of a business, net of cash acquired	(3,050)	(109,975)	—
Loan collections	—	—	2,756
Purchases of intangibles	—	—	(1,414)
Purchases of property, plant and equipment	(10,715)	(6,213)	(4,249)
Net investing cash flows provided by (used in) continuing operations	(11,043)	126,267	(118,506)
Net investing cash flows provided by discontinued operations	—	—	49,297
Cash provided by (used in) investing activities	(11,043)	126,267	(69,209)
Cash flows from continuing financing activities:			
Proceeds from stock option exercises	10,067	11,486	22,840
Proceeds from stock issued under employee stock purchase plan	3,508	3,112	3,431
Excess tax benefits from share-based compensation	3,249	1,662	9,462
Repurchase and retirement of common shares	(85,498)	(103,882)	(6,289)
Contingent consideration payment	(1,518)	—	—
Redemption of senior subordinated convertible notes	—	(164,429)	(5,358)
Cash (used in) provided by financing activities	(70,192)	(252,051)	24,086
Effect of exchange rate changes on cash and cash equivalents	358	847	(119)
Net increase (decrease) in cash and cash equivalents	58,661	(14,226)	29,100
Cash and cash equivalents at beginning of fiscal year	42,661	56,887	27,787
Cash and cash equivalents at end of fiscal year	$101,322	$42,661	$56,887
Supplemental disclosure of consolidated cash flow information:			
Cash paid for income taxes	$42,890	$35,002	$38,396
Cash paid for interest	$3	$1,685	$3,386
Supplemental disclosure of consolidated non-cash investing and financing activities:			
Extinguishment of senior subordinated convertible notes with issuance of common stock	$—	$82,711	$—
Transfers of equipment from inventory	$3,644	$2,064	$4,123
Purchases of property, plant and equipment through accounts payable and other accrued liabilities	$1,300	$345	$231
Acquisition of Levitronix Medical			
Contingent consideration included in other accrued liabilities	$—	$1,518	$—
Contingent consideration included in contingent liabilities	$—	$22,052	$—

See notes to consolidated financial statements

THORATEC CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Operations and Summary of Significant Accounting Policies

Basis of Presentation

Thoratec Corporation (referred to in these Notes as "we," "our," "us," or the "Company"), is headquartered in Pleasanton, California and is a manufacturer of mechanical circulatory support products for use by patients with heart failure. Thoratec develops, manufactures and markets products that are used by physicians and hospitals for cardiac assist applications. Thoratec conducts business both domestically and internationally.

On April 25, 2010, our Board of Directors made a decision to sell our wholly-owned subsidiary, International Technidyne Corporation ("ITC") and on November 4, 2010, we sold ITC to ITC Nexus Holding Company, Inc. ("Nexus") for $55 million in cash pursuant to a Stock Purchase Agreement, dated as of November 4, 2010, with Nexus ("Purchase Agreement"). Accordingly, certain items have been reclassified to be presented as discontinued operations in the consolidated financial statements.

We report on a 52-53 week fiscal year, which ends on the Saturday closest to December 31. The fiscal year ended January 1, 2011, ("Fiscal 2010") included 52 weeks, the fiscal year ended December 31, 2011, ("Fiscal 2011") included 52 weeks and the fiscal year ended December 29, 2012, ("Fiscal 2012") included 52 weeks. Our consolidated financial statements include our wholly owned subsidiaries: Thoratec LLC and Continuum Services, Inc., based in the United States, and Thoratec Europe Limited, based in the United Kingdom, and Thoratec Switzerland GmbH, based in Switzerland. All intercompany transactions and balances have been eliminated in consolidation.

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

Cash and Cash Equivalents

Cash equivalents are defined as short-term, highly liquid investments with original maturities of 90 days or less at the date of purchase, consisting of money market funds and/or municipal bonds. The fair value of these investments (which approximates cost) is classified at Level 1 or Level 2—refer to Note 3 for further discussion.

Investments

Our available for sale investments consist primarily of municipal bonds, variable demand notes, corporate bonds, and auction rate securities. These are reported as short-term investments on the consolidated balance sheets, with the exception of auction rate securities, which are classified as a long-term investment.

Our investments in available-for-sale securities are reported at fair value. Unrealized gains and losses related to changes in the fair value of securities are recognized in accumulated other comprehensive income, net of tax, on our consolidated balance sheets. Changes in the fair value of available-for-sale securities impact the net income only when such securities are sold or an other-than-temporary impairment is recognized. Realized gains and losses on the sale of securities are determined by specific identification of each security's cost basis. We regularly review our investment portfolio to determine if any security is other-than-temporarily impaired, which would require us to record an impairment charge in the period any such determination is made. In making this judgment, we evaluate, among other things, the duration and extent to which the fair value of a security is less than its cost, the financial condition of the issuer and any changes thereto, and our intent to sell, or whether it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis. Our assessment on whether a security is other-than-temporarily impaired could change in the future due to new developments or changes in assumptions related to any particular security.

Fair Value Measurement

The carrying amounts of certain of our financial instruments including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their short maturities. Short-term investments are comprised of available-for-sale securities, which are carried at fair value. Other non-current assets, which include auction rate securities, deferred compensation plan assets, and marketable equity securities are carried at fair value. Foreign exchange contracts are stated at fair value based on prevailing financial market information.

Concentration of credit risks and certain other risks

We sell our products primarily to large hospitals and distributors. Credit is extended to our customers; however credit risks are mitigated by our credit valuation process and reasonably short collection terms. We generally do not require collateral or other security to support accounts receivable and maintain allowances for potential credit losses. To date, credit losses have not been significant. Uncollectible accounts, if any, are written off against the allowance when it is deemed that a customer account is uncollectible.

We place cash and cash equivalents in the custody of financial institutions that management believes are of high credit quality, which at times, may be in excess of the amount insured by the Federal Deposit Insurance Corporation. We also have short and long-term investments in municipal bonds, variable demand notes and auction rate securities, backed by U.S. Government or private insurers, which can be subject to certain credit risk. However, we mitigate the risks by investing in high-grade instruments, limiting our exposure to any one issuer, and monitoring the ongoing creditworthiness of the financial institutions and issuers.

We operate internationally and have significant operations and assets in the United Kingdom and Switzerland. We remain exposed to changes in law (including changes that result from international treaties and accords) that could adversely affect our results, such as increases in taxes or government fees; price controls; changes in health, environmental and medical regulations or other laws that increase our cost of compliance or reduce or delay available business opportunities. 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 future financial position or results of operations: counterparty credit risk in the current market environment; the ability to receive and maintain U.S. Food and Drug Administration ("FDA") and foreign regulatory authorities approval to manufacture, market and sell our products; our ability to adequately and timely address issues raised by FDA inspections; the ability to direct and manage current and future growth and 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 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; 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 the management of risks inherent in selling in foreign countries; foreign currency fluctuations; the long and variable sales and deployment cycle of our mechanical circulatory support ("MCS") products; the willingness of third party payors to cover and provide appropriate levels of reimbursement for our products; the ability to realize the full value of our intangible assets; product liability or other claims; 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 catastrophic disasters; the ability to maintain profitability; claims relating to the handling, storage or disposal of hazardous chemicals and biomaterials; changes in legal and accounting regulations and standards; changes in tax regulations; and limitations on potential acquisitions and stock pricing.

Inventories

Inventories are valued at the lower of cost (first-in, first-out) or market. Products may become obsolete due to market or economic conditions, technology changes, new product introductions or changes in strategic direction and may require estimates that include uncertain elements. Based on management's estimate, adjustments to reduce the value of inventory to its net realizable value, if required, are made for estimated excess or obsolete inventory.

Property, Plant, and Equipment

Property, plant, and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method based on estimated useful lives of two to thirty years. Leasehold improvements are amortized over the lesser of the useful life or the remaining term of the lease. Property, plant, and equipment also include certain medical

devices rented to customers. Depreciation expense of all rental equipment included in our rental program is recognized ratably over two to three years and is recorded in cost of product sales.

Valuation of Long-Lived Assets and Purchased Intangible Assets

We evaluate the carrying value of long-lived assets, including purchased intangible assets, whenever events, changes in business circumstances or our planned use of long-lived assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. If these facts and circumstances exist, we assess for recovery by comparing the carrying values of long-lived assets with their future undiscounted net cash flows. If the comparison indicates that impairment exists, long-lived assets are written down to their respective fair value based on discounted cash flows. Significant management judgment is required in the forecast of future operating results that was used in the preparation of expected undiscounted cash flows. Product sales from our PVAD and IVAD product lines, collectively known as the Thoratec product line, were $29.5 million and $28.1 million in fiscals 2010 and 2011, respectively, and significantly declined to $19.0 million in fiscal 2012 as a result of recent changes in the market in which these products compete. Accordingly, we assessed for recovery the associated purchased intangible assets with their future undiscounted net cash flows in the fourth quarter of 2012. The comparison resulted in the existence of impairment, and accordingly the purchased intangible assets were written down to the fair value totaling $12.6 million, resulting in an impairment charge of $50.2 million. Refer to Note 6 for further information. No impairments of purchased intangible assets were identified during the fiscal years 2011 and 2010.

Goodwill

We test goodwill for impairment on an annual basis in the fourth quarter of each fiscal year or more frequently if we believe indicators of impairment exist. The performance of the test involves a two-step process. The first step requires comparing the fair value of the reporting unit to its net book value, including goodwill. A potential impairment exists if the fair value of the reporting unit is lower than its net book value. The second step of the process is only performed if a potential impairment exists, and it involves comparing the aggregate fair value of the reporting unit's net assets other than goodwill to the fair value of the reporting unit as a whole. Goodwill is considered impaired, and an impairment charge is recorded, if the excess of the fair value of the reporting unit over the fair value of the net assets is less than the carrying value of goodwill. We found no impairment as a result of our fiscal 2012, 2011, and 2010 annual impairment reviews, as the fair value of our reporting unit was in excess of its carrying value.

Deferred Compensation Plan

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 as elected by the participants. The liability for compensation deferred under this plan is included in "Other long-term liabilities" 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 the liability under the plan with an investment that offsets a substantial portion of our exposure. The investments associated with the deferred compensation plan are included in "Other long-term assets" on our consolidated balance sheets at the cash surrender value of our corporate owned life insurance policies and the fair value of the mutual fund investments. Changes in the cash surrender value of our corporate owned life insurance policies and the fair value of mutual fund investments are included in our consolidated statements of operations for all periods presented.

Revenue Recognition and Accounts Receivable

We recognize revenue from product sales to customers when persuasive evidence of an arrangement exists, the product has been delivered or service has been performed, the selling price is fixed or determinable, and collection is reasonably assured and there are no further obligations to customers. Delivery of the product is considered to have occurred when shipped. Sales from products are not subject to rights of return and, historically, actual sales returns have not been significant. We sell products through our direct sales force and through distributors. Sales through distributors are recognized as revenue upon sale to the distributor as these sales are considered to be final and no right of return or price protection exists. We recognize sales of certain products to first-time customers when it has been determined that the customer has the ability to use the products.

Accounts receivable are recorded at the invoiced amount and do not bear interest. We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to pay amounts due. The allowance for doubtful accounts is management's best estimate of the amount of probable credit losses in existing accounts receivable. We

determine the allowance based on specific identification and historical write-off experience. Past due balances are reviewed individually for collectability. Account balances are charged off against the allowance when we believe it is probable the receivable will not be recovered.

Product Warranty

The sales of our products generally include a limited one-year warranty on product quality. The estimated cost of product warranty claims is accrued at the time the sale is recognized, based on historical experience. While we believe that historical experience provides a reliable basis for estimating such warranty cost, unforeseen quality issues or component failure rates could result in future costs in excess of such estimates, or alternatively, improved quality and reliability in our products could result in actual expenses that are below those currently estimated.

The changes in the warranty provision included in "Other accrued liabilities" on the consolidated balance sheets were as follows for the fiscal years:

	2012	2011	2010
		(in thousands)	
Balance, beginning of the fiscal year	$2,452	$3,057	$1,706
Additions	1,492	1,922	6,127
Settlements	(1,732)	(2,527)	(4,776)
Balance, end of the fiscal year	$2,212	$2,452	$3,057

Advertising

All advertising costs are expensed as incurred and are included in selling, general and administrative in the consolidated statements of operations. Advertising expenses were $5.9 million, $4.3 million, and $3.4 million for fiscal 2012, 2011, and 2010, respectively.

Research and Development Expense

Research and development costs are charged to expense when incurred. 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 on the level of project activity planned and subsequently approved and conducted.

Share-Based Compensation

Share-based compensation expense is measured based on the grant-date fair value of the share-based awards. We recognize share-based compensation expense for the portion of the award that is expected to vest over the requisite service period for those awards. We develop an estimate of the number of share-based awards which will ultimately vest, primarily based on historical experience. The estimated forfeiture rate is reassessed periodically throughout the requisite service period. Such estimates are revised if they differ materially from actual forfeitures. As required, the forfeiture estimates will be adjusted to reflect actual forfeitures when an award vests. In addition, expected volatility is based on a combination of historical volatility trends and market-based implied volatility. We use the Black-Scholes option pricing model as the method for determining the estimated grant-date fair value of stock options and purchase rights under the ESPP. The Black-Scholes option pricing model requires the use of highly subjective and complex assumptions, which determine the fair value of share-based awards, including the option's expected term and the price volatility of the underlying stock.

For restricted stock units, share-based compensation expense is calculated based on the fair value of our stock at the grant date.

Income Taxes

Income taxes are recorded under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the consolidated financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which

the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such determination, we consider all available positive and negative evidence including future taxable income and ongoing prudent and feasible tax planning strategies. In the event we were to determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to the valuation allowance for the deferred tax asset would increase net income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of our net deferred tax asset in the future, an adjustment to the valuation allowance for the deferred tax asset would be charged to net income in the period such determination was made.

We record uncertain tax positions in accordance with accounting standards on the basis of a two-step process whereby (1) we determine whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position and (2) those tax positions that meet the more-likely-than-not recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority.

We recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying consolidated statements of operations. Accrued interest and penalties are included within the related tax liability line in the consolidated balance sheets.

Other Comprehensive Income (Loss)

Other comprehensive income (loss) includes net income, unrealized gains and losses on available-for-sale investments and foreign currency translation adjustments from continuing operations. There are no unrealized gains and losses on available-for-sale investments and foreign currency translation adjustments from discontinued operations.

Foreign Currency Translation

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 other comprehensive income. The functional currencies of our non-U.S. operations are generally designated in their respective local currencies. The period-end translation of the non-functional currency assets and liabilities at the period-end exchange rates result in foreign currency gains and losses, which are included in “interest income and other” in the consolidated statement of operations.

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. The Letter of Credit automatically renews on June 30 of each year, unless terminated by one of the parties. Our Letters of Credit balance was approximately $0.8 million, as of December 29, 2012 and December 31, 2011.

Note 2. Acquisition of Levitronix Medical

On August 3, 2011, we acquired 100% of the medical business of Levitronix LLC (“Levitronix Medical”) for an upfront cash payment of $110 million, plus additional cash earn-out amounts (not to exceed $40 million in aggregate) payable annually over the next four years contingent upon achievement of certain product revenue targets. The earn out is calculated based on 36% of sales from Levitronix Medical in excess of sales of approximately $24 million per year over the next four years commencing from the date of acquisition. The fair value of the contingent consideration is calculated using the income approach, utilizing various revenue assumptions and applying a probability to each outcome. By applying this method, the estimated undiscounted range of outcomes was from $9.7 million to $37.4 million. The fair value of the contingent consideration as of the acquisition date was estimated and recorded at $23.6 million. The fair value of the contingent consideration is remeasured at the estimated fair value at each reporting period with the change in fair value recorded within operating expense within our consolidated statements of operations. Actual amounts paid may differ from the obligations recorded. In 2012, we paid $1.5 million of the contingent consideration. As of December 29, 2012, the estimated fair value of the remaining contingent consideration was $22.1 million.

Prior to the acquisition, we distributed and provided clinical support for the CentriMag in the U.S., under an agreement that would have expired at the end of 2011. We also collaborated on the development of the fully magnetically levitated motor technology employed in the HeartMate III left ventricular assist system, which is currently in preclinical testing. This acquisition allowed us to acquire the CentriMag product line and secure completely the fully magnetically levitated patented technology related to the HeartMate III.

In accordance with accounting standards for business combinations, we accounted for the acquisition of Levitronix Medical under the acquisition method. Under the acquisition method, the assets and liabilities assumed at the date of acquisition are recorded in the consolidated financial statements at their respective fair values at the acquisition date. The excess of the purchase price over the fair value of the acquired net assets has been recorded as goodwill in the amount of $113.0 million. Levitronix Medical's results of operations are included in the consolidated financial statements from the date of acquisition.

The determination of the estimated fair value of the acquired assets and liabilities requires management to make significant estimates and assumptions. We determined the fair value by applying established valuation techniques, based on information that management believed to be relevant to this determination. We also hired independent third parties to assist in the valuation of purchased intangible assets, goodwill and contingent consideration.

The purchase price consideration of cash and the fair value of the contingent earn-out consideration were as follows:

	(in thousands)
Cash	$110,000
Contingent consideration earn-out	23,570
Total fair value consideration	$133,570

The following table summarizes the purchase price allocation of the fair value of the assets acquired and liabilities assumed at the date of acquisition:

	(in thousands)	Amortization Period
Assets		
Short-term:		
Cash and cash equivalents	$26	
Accounts receivable	2,300	
Inventory	6,179	
Other current assets	11	
Long-term:		
Property, plant and equipment	185	
Identifiable purchased intangible assets		
Developed technology	6,270	3 to 10 years
Patents and trademarks	2,700	10 years
Pre-existing license agreements	2,300	7 years
Customer based relationships and other	4,270	3 to 6 years
Goodwill	113,034	
Deferred tax asset	1,144	
Total Assets	138,419	
Liabilities		
Short-term:		
Accrued liabilities	1,419	
Warranty accrual	161	
Contingent liabilities	580	
Long-term:		
Deferred tax liability	3,269	
Contingent liabilities	22,990	
Net Assets Purchased	$110,000	

In accordance with accounting for business combinations, we expensed $3.6 million in fiscal 2011 for all legal, consulting and other costs directly related to the acquisition and have recorded these costs as a component of selling, general and administrative expenses. Accounts receivable, net of allowance for doubtful accounts and other liabilities were stated at their historical carrying values, which approximate fair value given the short-term nature of these assets and liabilities. The fair value of the inventory was derived from model-based valuations for which all significant inputs and value drivers are

observable directly or indirectly ("Level 2 inputs"). The fair value of the non-financial assets, summarized above, were derived from significant unobservable inputs ("Level 3 inputs") determined by management based on market analysis, income analysis and discounted cash flow model. The fair value of fixed assets was determined using market data for similar assets. The fair value of purchased identifiable intangible assets was determined using our discounted cash flow models from income projections prepared by management, using weighted average cost of capital plus a 1% premium. The fair value of contingent earn-out liability was determined using discounted cash flow models for five revenue scenarios, which include a base case, most likely scenario, two scenarios that incorporate the likelihood of achieving lower revenues than estimated than the base case, and two scenarios that incorporate the likelihood of achieving higher revenues than the estimated base case. To calculate the fair value of the contingent liability, the probability of the discounted fair value of each scenario was weighted.

Purchased identifiable intangible assets included in the purchase price allocation consisted of: (i) developed technology of $6.3 million assigned economic lives of 3 to 10 years, amortized using a straight-line method, (ii) customer-based relationships of $4.0 million assigned economic lives of 3 to 6 years amortized using a straight-line method, (iii) patents and trademarks of $2.7 million assigned economic life of 10 years amortized using a straight-line method, (iv) pre-existing license agreements of $2.3 million assigned economic life of 7 years amortized using a straight-line method and (v) non-competition assets of $0.3 million assigned economic life of 5 years amortized using a straight-line method. All straight-line method of amortization above is based on the expected pattern of future benefits related to those respective intangible assets.

Goodwill of approximately $113.0 million represents the excess of the purchase price over the fair value of the underlying net tangible and intangible assets and represents the future economic benefits of maintaining the access to the U.S. CentriMag market, and expected synergies. From the acquisition date to December 31, 2011, the majority of goodwill is deductible for U.S. tax purposes, but non-deductible for foreign tax purposes. Deferred tax liabilities of approximately $3.3 million were recorded for certain foreign book to tax basis differences and deferred tax assets of approximately $1.1 million were recorded to reflect the U.S. impact of the foreign deferred tax liabilities.

The following schedule summarizes Levitronix product sales and income data included in our consolidated statements of operations for the period from the date of acquisition to December 31, 2011:

	August 3, 2011 to December 31, 2011
	(in thousands)
Product sales	$4,071
Net loss from continuing operations	(2,048)

The following schedule includes unaudited pro forma financial information for fiscal 2011 and 2010 as if the acquisition of Levitronix had occurred as of the beginning of the 2010 period. The pro forma financial information is provided for comparative purposes only and is not necessarily indicative of what actual results would have been had the acquisitions occurred on the dates indicated, nor do they give effect to synergies, cost savings, fair market value adjustments, profit in inventory, immaterial depreciation expense and other changes expected to result from the acquisition. Accordingly, the pro forma financial results do not purport to be indicative of consolidated results of operations as of the date hereof, for any period ended on the date hereof, or for any other future date or period.

	Fiscal 2011	Fiscal 2010
	(in thousands)	
Product sales	$430,055	$393,392
Income before taxes	127,907	102,055
Net income from continuing operations	$81,496	$59,398

The consolidated pro forma results include the following non-recurring pro-forma adjustments that were directly attributable to the acquisition:

- Amortization expense related to the acquired intangible assets of $1.7 million and $2.5 million for fiscal 2011 and 2010, respectively.
- Actual 2011 acquisition-related transaction costs of $3.6 million were excluded from the 2011 pro forma results above and included in the 2010 pro forma as if these costs were incurred during the 2010 period.

- Fair value adjustment related to inventory of $4.1 million, of which $3.6 million were sold from the acquisition date to December 31, 2011, and thus excluded from the 2011 pro forma results above. The 2010 pro forma includes the entire $4.1 million as if the inventory as of the acquisition date was entirely sold in the 2010 period.
- Intercompany revenues are excluded from the pro forma consolidated results of operations as if Levitronix operations are consolidated at the beginning of fiscal 2010.

Pro forma adjustments are tax-effected using our effective tax rate for each respective fiscal year.

Note 3. Fair Value Measurements and Fair Value of Financial Instruments

Our financial assets and liabilities carried at fair value are primarily comprised of investments in money market funds, certificate of deposits, municipal and corporate bonds, commercial paper, variable demand notes, auction rate securities, derivative contracts, certain investments held as assets under the deferred compensation plan, marketable equity securities, and the contingent consideration in connection with the Levitronix Medical acquisition. The fair value accounting guidance requires that assets and liabilities be carried at fair value and classified in one of the following three categories:

Level 1: Quoted prices in active markets for identical assets or liabilities that the Company has the ability to access

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data such as quoted prices, interest rates and yield curves

Level 3: Inputs that are unobservable data points that are not corroborated by market data

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels of certain securities within the fair value hierarchy. We recognize transfers into and out of levels within the fair value hierarchy in which the actual event or change in circumstances that caused the transfer occurs. There were no transfers between Level 1, Level 2, and Level 3 during fiscal 2012, 2011, and 2010.

The following table represents the fair value hierarchy for our financial assets and financial liabilities measured at fair value on a recurring basis:

	Total Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(in thousands)		
As of December 29, 2012:				
Assets				
Cash equivalents:				
Money market funds	$59,230	$59,230	$—	$—
Commercial paper	4,998	—	4,998	—
Municipal bonds	3,045	—	3,045	—
Corporate bonds	380	—	380	—
Short-term investments:				
Municipal bonds	107,533	—	107,533	—
Variable demand notes	21,330	—	21,330	—
Corporate bonds	12,258	—	12,258	—
Commercial paper	5,299	—	5,299	—
Certificate of deposit	2,006	—	2,006	—
Prepaid expenses and other assets:				
Foreign exchange contracts	16	—	16	—
Long-term investments:				
Auction rate securities	10,607	—	—	10,607
Other long-term assets:				
Investments included in our deferred compensation plan	1,731	—	1,731	—
Marketable equity securities	2,602	2,602	—	—
Other accrued liabilities				
Foreign exchange contracts	380	—	380	—
Contingent consideration (current and long-term portions)	$22,052	$—	$—	$22,052

	Total Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(in thousands)		
As of December 31, 2011:				
Assets				
Cash equivalents:				
Money market funds	$37,986	$37,986	$—	$—
Short-term investments:				
Municipal bonds	97,560	—	97,560	—
Variable demand notes	48,800	—	48,800	—
Corporate bonds	4,393	—	4,393	—
Prepaid expenses and other assets:				
Foreign exchange contracts	674	—	674	—
Long-term investments:				
Auction rate securities	16,090	—	—	16,090
Other long-term assets:				
Investments included in our deferred compensation plan	2,171	—	2,171	—
Liabilities				
Contingent consideration (current and long-term portions)	$23,570	$—	$—	$23,570

Financial assets and liabilities are considered Level 2 when their fair values are determined using inputs that are observable in the market or can be derived principally from or corroborated by observable market data such as pricing for similar securities, recently executed transactions, cash flow models with yield curves, and benchmark securities. Our Level 2 financial assets and liabilities include short-term investments, foreign exchange instruments and certain of our deferred compensation plan securities. In addition, Level 2 financial instruments are valued using comparisons to like-kind financial instruments and models that use readily observable market data as their basis.

Financial assets and liabilities are considered Level 3 when their fair values are determined using pricing models, discounted cash flow methodologies, or similar techniques, and at least one significant model assumption or input is unobservable. Level 3 financial assets include the auction rate securities for which there is limited market activity such that the determination of fair value requires significant judgment or estimation. The auction rate securities were valued using a discounted cash-flow model over a five-year period based on estimated interest rates, the present value of future principal payments, and interest payments discounted at rates considered to reflect the current market conditions and the credit quality of auction rate securities. In addition, Level 3 financial liabilities include the contingent consideration related to the acquisition of Levitronix Medical—Refer to Note 2 for additional information.

Available-for-sale investments are carried at fair value and are included in the tables above under short- and long-term investments. The aggregate market value, cost basis, and gross unrealized gains and losses of available-for-sale investments by major security type are as follows:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in thousands)		
As of December 29, 2012:				
Short-term investments:				
Municipal bonds	$107,416	$136	$(19)	$107,533
Variable demand notes	21,330	—	—	21,330
Corporate bonds	12,244	17	(3)	12,258
Commercial paper	5,298	1	—	5,299
Certificate of deposit	2,000	6	—	2,006
Total short-term investments	$148,288	$160	$(22)	$148,426
Long-term investments:				
Auction rate securities	$11,900	$—	$(1,293)	$10,607
Other long-term assets:				
Marketable equity securities(A)	2,996	—	(394)	2,602
Total long-term	$14,896	$—	$(1,687)	$13,209
As of December 31, 2011:				
Short-term investments:				
Municipal bonds	$97,406	$160	$(6)	$97,560
Variable demand notes	48,800	—	—	48,800
Corporate bonds	4,398	1	(7)	4,393
Total short-term investments	$150,604	$161	$(13)	$150,753
Long-term investments:				
Auction rate securities	$18,900	$—	$(2,810)	$16,090

(A) As of December 29, 2012, our available-for-sale equity securities have been in a continuous loss position less than 12 months.

As of December 29, 2012, we owned approximately $11.9 million face amount of auction rate securities classified as long-term. The assets underlying these investments are student loans backed by the U.S. government under the Federal Family Education Loan Program or by private insurers and are rated between AAA and A. Historically, these securities have provided liquidity through a Dutch auction process that resets the applicable interest rate periodically every seven to thirty-five days. Beginning in February of 2008, these auctions began to fail. The principal amount of these auction rate securities will not be accessible until future auctions for these securities are successful, a secondary market is established, these securities are called for redemption, or they are paid at maturity.

As of December 29, 2012, we had recorded an estimated cumulative unrealized loss of $1.3 million ($0.8 million, net of tax) related to the temporary impairment of the auction rate securities, which was included in accumulated other comprehensive income (loss) within the consolidated shareholders' equity. In addition, our management reviews impairments and credit loss associated with our investments, including auction rate securities, to determine the classification of the impairment as "temporary" or "other-than-temporary" and to bifurcate the credit and non-credit component of an other-than-temporary impairment event. We (i) do not intend to sell any of the auction rate securities prior to maturity at an amount below the original purchase value; (ii) intend to hold the investment to recovery and, based on a more-likely-than-not probability assessment, will not be required to sell the security before recovery; and (iii) deem that it is not probable that we will receive less than 100% of the principal and accrued interest from the issuer. Therefore, 100% of the impairment was charged to other comprehensive income (loss). Our auction rate securities are classified as long-term and are valued at $10.6 million using significant unobservable inputs. Further, we continue to liquidate investments in auction rate securities as opportunities arise. In fiscal 2012, we liquidated at par value $7.0 million of our auction rate securities.

If the issuers of the auction rate securities are unable to successfully complete future auctions and their credit ratings deteriorate, we may in the future be required to record an impairment charge to earnings on these investments. It could conceivably take until the final maturity of the underlying notes (up to 35 years) to realize the investments' fair value.

Our deferred compensation plan includes our corporate owned life insurance policies and mutual fund investments. The underlying mutual fund investments are deemed trading securities. The mutual fund investments' fair value and the cash

surrender value of our corporate-owned life insurance policies are classified in the consolidated balance sheets in "Other long-term assets." The aggregate value of our deferred compensation plan assets as of December 29, 2012 and December 31, 2011 was as follows:

	December 29, 2012	December 31, 2011
	(in thousands)	
Deferred compensation plan	$4,225	$3,763

The unrealized gain before tax from the change in the value of the deferred compensation plan was $0.4 million, $0.2 million, and $0.4 million in fiscal 2012, 2011 and 2010, respectively.

The amortized cost and fair value of available-for-sale debt investments, by contractual maturity, were as follows:

	Amortized Cost	Fair Value
	(in thousands)	
As of December 29, 2012:		
Maturing within 1 year	$107,621	$107,665
Maturing after 1 year through 5 years	40,667	40,761
Short-term available-for-sale investments	148,288	148,426
Maturing after 5 years	11,900	10,607
	$160,188	$159,033
As of December 31, 2011:		
Maturing within 1 year	$128,602	$128,744
Maturing after 1 year through 5 years	22,002	22,009
Short-term available-for-sale investments	150,604	150,753
Maturing after 5 years	18,900	16,090
	$169,504	$166,843

The following table provides a roll forward of the fair value, as determined by Level 3 inputs, of the auction rate securities for 2012 and 2011:

	Auction rate securities	
	2012	2011
	(in thousands)	
Balance, beginning of the fiscal year	$16,090	$21,379
Settlements at par	(7,000)	(5,800)
Total unrealized gains included in other comprehensive income (loss)	1,517	511
Balance, end of the fiscal year	$10,607	$16,090

We continue to monitor the market for auction rate securities and consider its impact (if any) on the fair value of our investments. If the current market conditions deteriorate further, or the anticipated recovery in fair values does not occur, we may be required to record additional unrealized losses in other comprehensive income or other-than-temporary impairment charges to the consolidated statements of operations in future periods.

The following table provides a roll forward of the fair value, as determined by Level 3 inputs, of contingent consideration (current and long-term portions) for fiscal 2012 and 2011:

	Contingent consideration	
	2012	2011
	(in thousands)	
Balance, beginning of the fiscal year	$23,570	$—
Additions (See Note 2)	—	23,570
Payments	(1,518)	—
Change in fair value	—	—
Balance, end of the fiscal year	$22,052	$23,570

The following table presents quantitative information about the inputs and valuation methodologies used for our fair value measurements classified in Level 3 of the fair value hierarchy as of December 29, 2012:

	Fair Value at December 29, 2012 (in thousands)	Valuation Technique	Significant Unobservable Input	Weighted Average (range)
Auction rate securities.....	$10,607	Discounted cash flow	Discount rate	0.72% (0.72%)
			Market credit spread	3.34% (0.45% - 4.18%)
			Liquidity factor	0.09% (0.09%)
Contingent consideration	$22,052	Multiple outcome discounted cash flow	Annual Revenue	$38.9 million ($25.7 million to $46.0 million)
			Discount rate	1.08% (0.77% - 1.45%)
			Probability of occurrence	20% (5% - 50%)

Auction rate securities

The significant unobservable inputs used in the fair value measurement of the auction rate securities are the weighted average discount rate, market credit spread and liquidity factor. A significant increase (decrease) in the discount rate in isolation could result in a significantly higher (lower) fair value measurement, whereas a significant increase (decrease) in the market credit spread and liquidity factor in isolation could result in significant lower (higher) fair value measurement. Although the discount rate and the market credit spread and liquidity factor are not directly interrelated, they will generally move in opposite directions.

The fair value of auction rate securities is calculated on a quarterly basis by senior management based on a collaborative effort of the corporate treasury and accounting groups. To assess the reasonableness of the fair value measurement, management compares its fair value measurement to the values calculated by independent third parties.

Contingent consideration

The estimated fair value of the liability for contingent consideration represents revenue targets related to the Levitronix Medical acquisition. The fair value of the liability is determined using a discounted cash flow technique with significant inputs that include projected revenue, discount rate and percent probability of occurrence. A significant increase (decrease) in the projected revenue in isolation could result in a significantly higher (lower) fair value measurement; a significant increase (decrease) in the discount rate in isolation could result in a significantly lower (higher) fair value measurement; and the changes in the probability of occurrence between the outcomes in isolation could result in a significantly lower or higher fair value measurement.

The fair value of the contingent consideration is calculated on a quarterly basis by management based on a collaborative effort of our operation, finance and accounting groups. Potential valuation adjustments are made as additional information becomes available, including the progress toward achieving revenue targets as compared to initial projections, the impact of market competition, and changes in actual and projected product mix and average selling price, with the impact of such adjustments being recorded in the condensed consolidated statement of operations. No adjustments were made for the fiscal year ended December 29, 2012.

Assets and Liabilities That Are Measured at Fair Value on a Nonrecurring Basis

Non-financial assets such as goodwill, intangible assets, and property, plant, and equipment are evaluated for impairment annually or when indicators of impairment exist. In fiscal 2012, we recorded an impairment charge of $50.2 million for certain intangible assets used in connection with our PVAD and IVAD product line, refer to Note 6 for further information. An impairment charge for non-financial assets was not recorded in fiscal 2011 or 2010. Non-financial assets such as identified intangibles acquired in connection with the Levitronix Medical acquisition during fiscal 2011 are measured at fair value using Level 3 inputs, which include discounted cash flow methodologies, or similar techniques, when there is limited market activity and the determination of fair value requires significant judgment or estimation.

Note 4. Foreign Exchange Instruments

We utilize foreign currency forward exchange contracts and options with recognized financial institutions to manage our exposure to the impact of fluctuations in foreign currency exchange rates on certain intercompany balances and foreign

currency denominated sales and purchase transactions. We do not use derivative financial instruments for speculative or trading purposes. These derivatives are not designated as hedging instruments for accounting purposes. Principal hedged currencies include the Euro, British Pound Sterling, U.S. Dollar and Swiss Franc. The periods of these forward contracts is between 30 to 120 days and have varying notional amounts that are intended to be consistent with changes in the underlying exposures. We intend to exchange foreign currencies for U.S. dollars at maturity.

Total gross notional amounts for outstanding derivatives instruments were as follows at the end of the fiscal year:

	2012	2011
Forward contracts:		
Euro (sell)	€13.9 million	€9.6 million
British Pound Sterling (sell)	£1.8 million	£0.8 million
U.S. Dollar (sell)	$5.3 million	$3.6 million
U.S. Dollar (buy)	$73.5 million	$76.2 million
U.S. Dollar (buy)	$—	$9.1 million

The following table shows the derivative instruments measured at gross fair value reported under the caption of "Prepaid expenses and other assets" and "Other accrued liabilities" on the consolidated balance sheets as of the end of the fiscal year:

	December 29, 2012	
	Prepaid expenses and other assets	Other accrued liabilities
	(in thousands)	
Derivatives not designated as hedging instruments (forward contracts)	$16	$380

	December 31, 2011	
	Prepaid expenses and other assets	Other accrued liabilities
	(in thousands)	
Derivatives not designated as hedging instruments (forward contracts)	$674	$—

The following table shows the effect of derivative instruments not designated as hedging instruments and foreign currency transactions gains and losses, which were included in "Interest income and other" in the consolidated statements of operations in fiscal years 2012, 2011, and 2010:

	2012	2011	2010
		(in thousands)	
Foreign currency exchange gain (loss) on foreign contracts	$(1,921)	$305	$744
Foreign currency transactions gain (loss)	$2,046	$(657)	$(761)

Note 5. Balance Sheet Information

The following tables provide details of selected consolidated balance sheets items as of the end of the fiscal year:

Inventories consisted of the following at the end of each fiscal year:

	2012	2011
	(in thousands)	
Finished goods	$15,087	$20,911
Work-in-process	11,020	11,296
Raw materials	20,993	23,484
Total	$47,100	$55,691

Property, plant and equipment, net consisted of the following at the end of each fiscal year:

	2012	2011
	(in thousands)	
Land, building and improvements	$20,543	$20,116
Equipment and capitalized software	46,290	38,829
Furniture and leasehold improvements	20,933	23,406
Total property, plant and equipment	87,766	82,351
Less accumulated depreciation and amortization	(41,874)	(43,423)
Total property, plant and equipment, net	$45,892	$38,928

Depreciation expense in fiscal years 2012, 2011 and 2010 was $8.6 million, $8.5 million, and $6.7 million, respectively.

Note 6. Goodwill and Purchased Intangible Assets, net

The carrying amount of goodwill and the changes in those balances of each fiscal year are as follows:

	2012	2011
	(in thousands)	
Balance, beginning of the fiscal year	$191,193	$95,015
Goodwill additions	690	113,034
Foreign currency translation impact	2,299	(16,856)
Balance, end of fiscal year	$194,182	$191,193

In August 2011, we recorded goodwill of $113.0 million related to the Levitronix Medical acquisition. From the date of such acquisition to December 31, 2011, the majority of the goodwill was deductible for U.S. tax purposes, but non-deductible for foreign tax purposes. Refer to Note 2 for additional information.

In November 2012, we acquired certain assets from CFK Cardiac Technologies LLC. This acquisition qualified as a business combination under the accounting standards and was integrated into our existing operating segment: Cardiovascular group. Through this acquisition, we will be able to manage the ongoing provision of driveline dressing supplies and replacement accessories for patients living on HeartMate II support after discharge from the hospital. Total purchase price consideration was $3.35 million. We recorded $0.3 million to tangible assets acquired, $2.4 million to identifiable intangible assets (weighted average life of approximately 5 years), and $0.7 million to goodwill, which is deductible for U.S. tax purposes. Acquisition related costs were not significant.

Based on our annual impairment review in the fourth quarter of fiscal 2012, 2011, and 2010, we concluded that goodwill was not impaired in any of the years presented.

Intangibles (net of accumulated amortization and impairment) were as follows:

	As of December 29, 2012			
	Gross Amount	Accumulated Amortization	Accumulated Impairment	Net Amount
	(in thousands)			
Patents and trademarks	$43,475	$(33,463)	$—	$10,012
Core technology	37,180	(21,388)	(12,642)	3,150
Developed technology	127,940	(76,379)	(37,600)	13,961
Pre-existing license agreement	2,300	(465)	—	1,835
Customer based relationships and other	6,578	(2,220)	—	4,358
	217,473	(133,915)	(50,242)	33,316
Foreign currency translation impact	255	—	—	255
Total purchased intangible assets	$217,728	$(133,915)	$(50,242)	$33,571

	As of December 31, 2011		
	Gross Amount	Accumulated Amortization	Net Amount
		(in thousands)	
Patents and trademarks	$43,531	$(31,836)	$11,695
Core technology	37,180	(19,445)	17,735
Developed technology	128,072	(69,262)	58,810
Pre-existing license agreement	2,300	(145)	2,155
Customer based relationships and other	4,270	(493)	3,777
	215,353	(121,181)	94,172
Foreign currency translation impact	(1,893)	—	(1,893)
Total purchased intangible assets	$213,460	$(121,181)	$92,279

In February 2001, we merged with Thermo Cardiosystems, Inc. The components of identifiable intangible assets totaled $207.0 million, which included patents and trademarks, core technology, and developed technology (collectively referred to as the "PVAD and IVAD intangible assets"). During the fourth quarter of 2012, we determined that the downward trend in sales of the PVAD and IVAD product lines (collectively known as he Thoratec product line) for the first three quarters of the year which fell short of the forecast established at the beginning of the year, should be expected to continue due primarily to 1) earlier treatment of heart failure patients with implantable ventricular assist devices as more clinicians are aware and willing to implant a Left Ventricular Assist Device ("LVAD"), 2) an expanded range of competing therapies, 3) the continued evolution of products, including Heartmate II and Centrimag, and 4) increased usage of other competitive VADs providing biventricular support for the heart. Consequently, we determined that sufficient indicators of potential impairment existed to require an impairment assessment of our PVAD and IVAD intangible assets. These indicators included the recent business trends of the Thoratec product line, coupled with recent changes in the competitive market landscape which we believe contributed to the significant decline in sales in 2012, from approximately $29.5 million and $28.1 million in fiscals 2010 and 2011, respectively, to $19.0 million in fiscal 2012. The fair value was based on the individual discounted cash flows of "Core technology" and "Developed technology" intangible asset categories within PVAD and IVAD. The decline in the fair value of these intangible assets resulted from lower projected revenue and profitability levels. The comparison between the undiscounted cash flows and the carrying value of the intangible assets resulted in the existence of impairment. Accordingly, the PVAD and IVAD intangible assets were written down to $12.6 million, resulting in an impairment charge of $50.2 million. The impairment charge of $50.2 million was reported in a separate line "Impairment of intangible assets" used in determining gross profit on the consolidated statement of operations for the fiscal year ended December 29, 2012, given that the amortization of these intangible assets is recorded to cost of product sales.

Key assumptions used to determine the fair value of the PVAD and IVAD intangible assets, based on level 3 fair value hierarchy, were: expected cash flow for the period from 2013 to 2017, which was based on management's best estimate of a market participant's after-tax weighted average cost of capital. If the discount rate applied in the Company's analysis had been 100 basis points higher than estimated, the resulting impact on the intangible impairment charge would not have been material. Changes in the judgments and estimates underlying our analysis of intangible assets for possible impairment, including expected future cash flows and discount rate, could result in a significantly different estimate of the fair value of these intangible assets in the future and could result in an additional impairment charge.

There was no indication of potential impairment of the other purchased intangible assets. We have no intangible assets with indefinite lives. Amortization expense related to identifiable intangible assets was $11.1 million, $9.7 million, and $9.8 million in fiscal 2012, 2011, and 2010, respectively.

Patents and trademarks have remaining useful lives ranging from six to nine years, core and developed technology assets have remaining useful lives ranging from two to nine years, pre-existing license agreements have remaining useful lives of six years, and customer-based relationships have remaining lives of two to seven years.

Estimated amortization expense for the next five fiscal years and all years thereafter are as follows:

	(in thousands)
Fiscal year:	
2013	$10,623
2014	6,674
2015	4,580
2016	3,353
2017	2,554
Thereafter	5,787
Total	$33,571

Note 7. Commitments and Contingencies

Legal Proceedings

From time-to-time we are involved in litigation arising out of claims in the normal course of business. Based on the information presently available, management believes that there are no claims or actions pending or threatened against us, the ultimate resolution of which will have a material effect on our financial position, liquidity or results of operations, although the results of litigation are inherently uncertain.

Contingent Consideration

In August 2011, we acquired Levitronix Medical using a combination of cash and post-acquisition earn-out payments. The earn-out payments are payable annually over the next four years, calculated based on 36% of sales from Levitronix Medical in excess of approximately $24.0 million per year. Each annual earn-out payment is contingent upon results of operations. As of December 29, 2012, the fair value of the contingent consideration was $22.1 million.

Leases

We lease certain manufacturing, office, research facilities, and equipment under operating leases that expire at various times, the longest of which expires on September 1, 2027. Future minimum lease payments for the next five years and thereafter are as follows:

	(in thousands)
Fiscal year ended:	
2013	$2,656
2014	2,191
2015	1,954
2016	1,764
2017	1,550
Thereafter	13,358
Total	$23,473

Rent expense for all operating leases for fiscal 2012, 2011, and 2010 was $2.9 million, $2.2 million, and $1.9 million, respectively.

Commitments

We have purchase order commitments, including both supply and inventory related agreements, totaling approximately $85.2 million and $77.4 million as of December 29, 2012, and December 31, 2011, respectively.

We enter into standard indemnification provisions with many of our customers and certain other business partners in the ordinary course of business. These provisions include obligations to indemnify the customers, distributors and certain vendors against any claim brought by a third party to the extent any such claim alleges that our products infringe an intellectual property right of a third party, that the use of our products caused injury or death, or that our products were defective, in each case subject to certain limitations, including that the products be used in strict accordance with their FDA approved labeling. The maximum potential amount of future payments we could be required to make under these indemnification obligations is not estimable. However, we have not incurred any significant costs to defend lawsuits or settle claims related to these indemnification obligations. No material claims for such indemnification were outstanding as of December 29, 2012. We have not recorded any liabilities for these indemnification obligations as of December 29, 2012, and December 31, 2011.

Note 8. Debt and Other Financing Arrangements

Senior Subordinated Convertible Notes (retired in May 2011)

In 2004, we completed the sale of $143.8 million of 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.

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 bore 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.

Holders of the senior subordinated convertible notes were able to 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 as set forth in the indenture. If holders elected conversion, we could elect, at our option, to deliver shares of common stock, pay a holder in cash, or deliver a combination of shares and cash, as determined pursuant to the terms of the notes.

Holders could have required 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. On March 31, 2011, pursuant to our rights under the terms of the Notes we gave notice of our intention to redeem all of our outstanding senior subordinated convertible notes on May 17, 2011. During the second quarter of 2011, prior to or on May 16, 2011, bondholders converted 243,367 bonds, and we elected to pay $164.4 million in cash and issue 2,397,535 shares with an estimated fair value at conversion of $82.7 million. In addition, on May 17, 2011, we redeemed the remaining outstanding 15 bonds for cash. We accounted for the extinguishment in accordance with ASC 470-20, *Debt*, and there was no gain or loss reported for the fiscal year ended December 31, 2011. The difference of $105.7 million between the fair value of the aggregate consideration paid of $247.1 million and the face value of the senior subordinated convertible notes of $141.4 million was recorded to additional paid-in-capital.

In accordance with accounting standards for certain convertible debt instruments that may be settled in cash or other assets, or partially in cash, upon conversion, we recorded the long-term debt and equity components on the senior subordinated convertible notes separately. This accounting pronouncement increased interest expense associated with our senior subordinated convertible notes by adding a non-cash component to amortize a debt discount calculated based on the difference between the cash coupon rate (2.375% per year) of the senior subordinated convertible notes and the effective interest rate on debt borrowing (9% per year). The discount, which represents the non-cash interest expense, classified as interest expense on the consolidated statements of operations, was being amortized to interest expense over a seven-year period ending May 16, 2011 (the expected life of the liability component) using the effective interest method. Additionally, we allocated transaction costs on the same percentage as the liability and equity component, such that a portion of the deferred debt issuance costs was allocated to the liability component to be amortized using the effective interest method until May 16, 2011, and the equity component to be included in additional paid-in-capital.

Interest expense primarily includes interest and amortization of discount related to senior subordinated convertible notes as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Interest expense—cash component	$—	$1,259	$3,379
Interest expense—non-cash component	—	3,127	8,842

Credit Facility

On December 19, 2011, we signed an unsecured revolving credit facility agreement that provides for up to $50.0 million revolving credit that will expire on December 19, 2016. The interest rate charged on the amounts borrowed is LIBOR plus a margin (ranging from 0.75% to 1.25%). The agreement contains financial covenants. We were in compliance with all covenants as of December 29, 2012. The credit agreement permits us to use the facility for working capital and general corporate purposes. As of December 29, 2012, there were no borrowings under this credit facility.

Note 9. Share-Based Compensation

Our Board of Directors authorized the 2006 Incentive Stock Plan (the "2006 Plan"). The 2006 Plan was last amended in May 2012. Participation in the 2006 Plan is limited to employees, directors, and consultants. Shares reserved for future issuance under the 2006 Plan may be used for grants of stock options ("options"), restricted stock units ("RSUs"), and other types of awards. Options granted under the 2006 Plan are either incentive or nonqualified stock options and generally become exercisable in increments over a period of four years from the date of grant and expire generally ten years from the grant date. RSAs and RSUs generally vest over a four-year period.

The Board of Directors authorizes the granting of options, RSUs and other type of awards, and determines the employees and consultants to whom options, RSUs, or other awards are to be granted, the number of shares, term, vesting schedule and other terms and conditions of the options, RSUs or other stock awards. The exercise prices of the options shall not be less than the fair market value of common stock on the date of grant. The fair value of RSUs granted was determined based on the number of RSUs granted and the quoted price of our common stock on the date of grant. As of December 29, 2012, 4.8 million shares remained available for grant under the 2006 Plan.

Additionally, we sponsor the Employee Stock Purchase Plan (the "ESPP") in which eligible employees may contribute up to 15% of their base compensation to purchase shares of common stock at a price equal to 85% of the lower of the market value of the stock at the beginning or end of each six-month offer period. During fiscal 2012, approximately 119,032 shares of common stock were issued under the ESPP. As of December 29, 2012, approximately 422,943 shares remained available for issuance under this plan.

Share-based compensation expense and related share award activity is presented on a consolidated basis, unless otherwise presented as continuing or discontinued operations.

Share-based compensation consists of the following:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Cost of product sales	$2,130	$1,543	$1,262
Selling, general and administrative	13,235	10,387	8,064
Research and development	6,327	4,171	3,328
Total share-based compensation expense before taxes	21,692	16,101	12,654
Tax benefit for share-based compensation expense	8,501	5,688	4,649
Total share-based compensation expense—continuing operations (net of taxes)	$13,191	$10,413	$8,005
Total share-based compensation expense—discontinued operations (net of taxes)	$—	$—	$2,203

Share-based compensation costs of $0.2 million, $0.4 million and $0.3 million was capitalized to inventory as of December 29, 2012, December 31, 2011, and January 1, 2011, respectively.

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. The excess tax benefits (i.e., windfalls only for tax deductions in excess of the share-based compensation expense recognized) are reported as financing cash flows of $3.2 million, $1.7 million and $9.5 million for fiscal 2012, 2011, and 2010, respectively, on the consolidated statements of cash flows.

Cash proceeds from the exercise of stock options were $10.1 million, $11.5 million, and $22.8 million for fiscal 2012, 2011, and 2010, respectively. Cash proceeds from our employee stock purchase plan were $3.5 million, $3.1 million, and $3.4 million for fiscal 2012, 2011, and 2010, respectively. The actual income tax benefit realized from stock option exercises was $3.4 million, $1.8 million, and $11.2 million for fiscal 2012, 2011, and 2010, respectively.

Stock Options

The fair value of each option is estimated at the date of grant using the Black- Scholes option pricing formula with the following assumptions:

	Fiscal Years		
	2012	2011	2010
Risk-free interest rate	1.40%	2.71%	2.95%
Expected volatility	43%	44%	40%
Expected option life	4.76 - 5.84 years	4.69 - 5.33 years	4.87 - 5.89 years
Dividends	None	None	None

Determining Fair Value for Options

- *Valuation and amortization method*—We estimate the fair value of stock options granted using the Black-Scholes-option-pricing formula. This fair value is then amortized over the requisite service periods of the awards.

- *Expected Term*—The expected term of options represents the period of time that options are expected to be outstanding. We use separate assumptions for groups of employees (for example, officers) that have similar historical exercise behavior, giving consideration to the contractual terms of the share-based awards, vesting schedules and expectations of future employee behavior as influenced by changes to the terms of our share-based awards. The range above reflects the expected option impact of these separate groups.

- *Expected Volatility*—Our expected volatility was based on a combination of historical volatility trends and market-based implied volatility because we determined that this combination of historical volatility trends and market-based implied trends is reflective of market conditions. In determining the extent of use of implied volatility, we considered: (i) the volume of market activity of traded options; (ii) the ability to reasonably match the input variables of traded options to those of stock options granted by us, including the date of grant; (iii) the similarity of the exercise prices; and (iv) the length of term of traded options.

- *Risk-Free Interest Rate*—The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant.

- *Expected Dividend*—The expected dividend assumption is based on our current expectations about our anticipated dividend policy.

Option activity is summarized as follows:

	Number of Options (in thousands)	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contract Life (years)
Outstanding as of January 2, 2010 (2,687 exercisable at $16.17 weighted average price per share)	3,857	$17.29	5.60
Granted	482	30.47	
Cancelled and expired	(215)	24.10	
Exercised	(1,430)	15.97	
Outstanding as of January 1, 2011 (1,883 exercisable at $17.60 weighted average price per share)	2,694	$19.81	5.05
Granted	643	27.72	
Cancelled and expired	(112)	24.11	
Exercised	(687)	16.72	
Outstanding as of December 31, 2011 (1,484 exercisable at $19.04 weighted average price per share)	2,538	$22.46	5.96
Granted	602	33.74	
Cancelled and expired	(76)	31.13	
Exercised	(566)	17.78	
Outstanding as of December 29, 2012	2,498	25.98	6.27

As of December 29, 2012, there was $7.0 million of unrecognized compensation expense, net of estimated forfeitures, related to stock options, which we expect to recognize over a weighted average period of 1.35 years. The aggregate intrinsic value of in-the-money options outstanding as of December 29, 2012 was $27.8 million. The total intrinsic value of options exercised during fiscal 2012, 2011, and 2010 was $10.0 million, $8.1 million and $33.1 million, respectively. The weighted average grant-date fair value of options granted during fiscal 2012, 2011, and 2010 was $14.99 per share, $13.53 per share and $12.80 per share, respectively.

The following table summarizes outstanding options that have vested or expected to vest and are exercisable as of December 29, 2012:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value Price
	(in thousands)		(in years)	(in millions)
Vested or expected to vest	2,436	$25.83	6.2	$27.5
Exercisable	1,265	$21.29	4.1	$20.0

Options outstanding as of December 29, 2012 are summarized as follows:

	Options Outstanding			Options Exercisable	
	(in thousands, except contractual life and exercise price)				
Exercise Price Range	Number	Weighted Average Remaining Contractual Life (In Years)	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$8.52 - $20.34	552	3.08	$16.04	552	$16.04
$20.60 - $23.93	537	3.91	$23.63	484	$23.59
$24.35 - $29.81	754	7.80	$28.16	210	28.53
$29.85 - $33.16	106	9.02	$31.76	11	$32.18
$33.99 - 44.79	549	9.16	$34.19	8	$39.91
	2,498	6.27	$25.98	1,265	$21.29

Restricted Stock Units

As of December 29, 2012, we had $32.1 million of unrecognized compensation expense, net of estimated forfeitures, which we expect to recognize over a weighted average period of 2.43 years. The aggregate intrinsic value of the RSUs outstanding was $54.2 million.

RSU activity is summarized as follows:

	Number of Units (in thousands)	Weighted Average Grant Date Fair Value	Weighted Average Remaining Contract (in Years)
Outstanding units as of January 2, 2010	463	24.17	3.12
Granted	718	31.47	
Released	(250)	28.89	
Forfeited or expired	(243)	27.61	
Outstanding units as of January 1, 2011	688	28.86	1.53
Granted	736	28.73	
Released	(209)	28.25	
Forfeited or expired	(64)	27.94	
Outstanding units as of December 31, 2011	1,151	28.88	1.50
Granted	730	34.22	
Released	(327)	28.54	
Forfeited or expired	(92)	30.74	
Outstanding units as of December 29, 2012	1,462	31.52	1.37

Employee Stock Purchase Plan

The estimated subscription date fair value of the offering under the ESPP for each fiscal year 2012, 2011 and 2010 were approximately $0.6 million as calculated using the Black-Scholes option pricing model and the following assumptions:

	Fiscal Years		
	2012	2011	2010
Risk-free interest rate	0.15%	0.05%	0.16%
Expected volatility	39%	36%	46%
Expected option life	0.50 years	0.50 years	0.50 years
Dividends	None	None	None

As of December 29, 2012, there was approximately $0.4 million of unrecognized compensation expense related to ESPP subscriptions that began on November 1, 2012, which amount we expect to recognize during the first four months of 2013.

Note 10. Common and Preferred Stock

We 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 for 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. As of December 29, 2012, no shares of Series A preferred stock were outstanding.

The Series B preferred stock is senior to the Series A in all preferences. The 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 its liquidation preference. 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. As of December 29, 2012, no shares of Series B preferred stock were outstanding.

On November 7, 2011 we announced that our Board of Directors authorized a new program ("November 2011 program") for the repurchase of up to $50 million worth of shares of our common stock. Additionally, the Board of Directors extended the expiration date for the $50 million remaining under the $100 million share repurchase program authorized by our Board of Directors on February 14, 2011 ("February 2011 program and collectively with the November 2011 program, referred to as "the 2011 programs") to November 4, 2012. In 2012, under the 2011 programs, we paid an additional $5.4 million to repurchase 168,509 shares of our common stock. In each case, the repurchase of shares of our common stock under these programs has reduced the number of shares of our common stock. The 2011 programs expired on November 4, 2012.

On November 26, 2012, our Board of Directors authorized the repurchase of up to $150 million of the Company's shares of common stock. As part of the authorization, the Company entered into an Accelerated Share Repurchase (ASR) agreement with J.P. Morgan, under which we agreed to repurchase an aggregate of $75.0 million of our common stock. Under the ASR Program, we paid $75.0 million and received an initial delivery of approximately 1.5 million shares, which represented 75% of the ASR Program's value at a price of $38.03 per share at the inception of the program. Shares representing the remaining 25% of the ASR Program's value will be delivered at maturity date of the program, which can be up to 4.5 months from the inception of the program, with the final number of shares to be repurchased based on the volume-weighted average price (VWAP) of our common stock during the repurchase period, less an agreed upon discount and adjusted for the initial share delivery. Under the terms of the ASR Program, at settlement, we could either receive additional shares from the counterparty or be required to deliver additional shares or cash, at our option, to the counterparty. The total number of shares ultimately repurchased will not be known until the calculation period ends and a final settlement occurs. As of December 29, 2012, $75.0 million is available for repurchases of shares of our common stock under the November 2012 program.

The ASR Program was accounted for as two separate transactions: (i) as shares of common stock acquired in a share repurchase transaction and (ii) as a forward contract indexed to our own common stock. The initial delivery of shares resulted in an immediate reduction of the outstanding shares used to calculate the weighted-average common shares outstanding for basic and diluted net earnings per share from the effective date of the ASR Program. We have determined that the forward contract indexed to our common stock met all of the applicable criteria for equity classification. We are incorporated in California, and as California law does not recognize treasury stock, the shares repurchased decreased the common shares outstanding. We recorded the $56.2 million of shares repurchased by reducing the additional-paid-in capital balance based on the average-issuance price per share of all shares outstanding prior to the repurchase with the excess allocated to retained earnings. Based on this allocation, additional-paid-in capital decreased by $17.1 million and retained earnings decreased by $39.1 million in the consolidated statement of shareholders' equity. The remaining balance of $18.8 million was recorded as an equity forward contract, which is included in Additional Paid-in Capital in the accompanying consolidated balance sheet as of December 29, 2012.

Note 11. Retirement Savings Plans

Substantially all of our U.S. 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 100% of their eligible compensation to the Retirement Plan with the Company making discretionary matching contributions, subject to certain IRS limitations. During fiscal 2010 to 2012, the matching contribution was 50%, up to the first 6% of eligible employee plan contribution. Employees vest in the matching contribution at the rate of 25% per year, with full vesting after four years of service with us. In fiscal 2012, 2011 and 2010, we made matching contributions of approximately $2.0 million, $1.7 million and $1.4 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 $4.4 million and $3.7 million at December 29, 2012, and December 31, 2011, respectively, and is included in "Other long-term liabilities" 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 investments that offset a substantial portion of the Company's exposure. The cash surrender value of these corporate owned life insurance policies and the fair value of the mutual fund investments aggregated $4.2 million and $3.8 million as of December 29, 2012, and December 31, 2011, respectively, and is included in "Other long-term assets" on the consolidated balance sheets.

Note 12. Taxes on Income

Significant components of income taxes are as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Continuing operations:			
Current:			
Federal	$37,056	$34,453	$35,122
State	5,584	4,770	7,501
Foreign	6,348	2,483	2,516
	48,988	41,706	45,139
Deferred:			
Federal	(24,536)	(1,167)	(10,326)
State	(3,280)	(433)	(1,347)
Foreign	(18)	(810)	76
	(27,834)	(2,410)	(11,597)
Total income tax expense—continuing operations	$21,154	$39,296	$33,542
Discontinued operations:			
Current:			
Federal	$—	$(605)	$(4,431)
State	—	(151)	634
	—	(756)	(3,797)
Deferred:			
Federal	—	0	(950)
State	—	(15)	(449)
Foreign	—	0	18
	—	(15)	(1,381)
Total income tax expense (benefit)—discontinued operations	$—	$(771)	$(5,178)

Income (loss) from operations before taxes generated from geographic areas is as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Continuing operations:			
Domestic	$50,351	$108,733	$89,386
Foreign	26,966	3,138	3,161
Total—continuing operations	$77,317	$111,871	$92,547
Discontinued operations:			
Domestic	$—	$(1,802)	$(11,017)
Total income from operations before taxes	$77,317	$110,069	$81,530

The income tax expense 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:

	Fiscal Years					
	2012		2011		2010	
	(in thousands, except percentages)					
Continuing operations:						
U.S. federal statutory income tax expense	$27,061	35.0%	$39,155	35.0%	$32,391	35.0%
State income tax expense, net of federal tax benefit	573	0.7	2,425	2.2	2,638	2.9
Non-deductible expenses	(326)	(0.4)	314	0.3	(84)	(0.1)
Research and development credits	—	—	(2,119)	(1.9)	(1,077)	(1.2)
Foreign earnings permanently reinvested	(2,348)	(3.0)	(63)	(0.1)	(39)	(0.1)
Tax advantaged investment income	(294)	(0.4)	(717)	(0.6)	(1,472)	(1.6)
Return-to-provision true-up	(563)	(0.7)	(63)	(0.1)	1,169	1.3
Revaluation of combined state deferred	—	—	—	—	575	0.6
Levitronix Medical U.S. deferred tax asset write-off	—	—	862	0.8	—	—
Compensation limitation write-down	536	0.7	859	0.7	700	0.8
Domestic production activities	(3,225)	(4.2)	(2,820)	(2.5)	(2,530)	(2.7)
Valuation allowance	(4)	0.0	(45)	0.0	821	0.9
Other	(319)	(0.4)	(72)	(0.1)	—	—
Tax reserves	63	0.1	1,580	1.4	450	0.4
Total income tax expense from continuing operations	$21,154	27.4%	$39,296	35.1%	$33,542	36.2%

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 credit carry forwards.

Significant components of deferred tax assets and liabilities for continuing operations are as follows:

	December 29, 2012	December 31, 2011
	(in thousands)	
Deferred tax assets:		
Reserves and accruals	$6,875	$3,236
Depreciation and amortization	25	1,479
Inventory basis difference	3,287	3,987
Share-based compensation	9,151	5,972
Research and development and other credit carry forwards	4,198	3,989
Capital loss carryovers	4,768	4,780
Other, net	1,269	1,762
Total deferred tax assets	29,573	25,205
Valuation allowance	(4,768)	(4,780)
	24,805	20,425
Deferred tax liabilities:		
Purchased intangibles	(7,025)	(29,540)
Other, net	(95)	(27)
Total deferred tax liabilities	(7,120)	(29,567)
Net deferred tax assets (liabilities)	$17,685	$(9,142)
Reported As:		
Current deferred tax assets	$10,626	$10,116
Other long-term assets—deferred tax assets	9,839	1,171
Net long-term deferred tax liabilities	(2,780)	(20,429)
Net deferred tax assets (liabilities)	$17,685	$(9,142)

As of December 29, 2012, we had research and development tax credit carryovers for state purposes of approximately $8.9 million. The majority of these state credits may be carried forward indefinitely.

On January 2, 2013, the President signed into law The American Taxpayer Relief Act of 2012. The 2012 Taxpayer Relief Act extends the research tax credit for two years to December 31, 2013. The extension of the research tax credit is retroactive and includes amounts paid or incurred after December 31, 2011. As a result of the enactment after the Company's 2012 year end, we expect to recognize a benefit of approximately $1.2 million for qualifying amounts incurred in 2012. The benefit will be recognized in the period of enactment, which is the first quarter of 2013.

As of December 29, 2012, we had approximately $12.4 million of federal and state capital losses remaining from 2010, which may generally be carried back three years for federal purposes and carried forward five years up to 2015 for both federal and California purposes, which is fully reserved with a valuation allowance.

The valuation allowance for deferred tax assets as of December 29, 2012 and December 31, 2011, was approximately $4.8 million. The valuation allowance of $4.8 million as of December 29, 2012, is related to capital loss carry forwards that, in the judgment of management, are more likely than not to be not realized. In assessing the recoverability of deferred tax assets, management considers whether it is more likely than not that some or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets depends on the generation of future taxable income of the appropriate character during the periods in which those temporary differences are deductible. We do not currently anticipate recognizing capital gains that would enable the Company to utilize the capital loss carry forwards; therefore the Company has recorded a full valuation allowance against this deferred tax asset. The Company believes realization of all of our remaining net deferred tax assets as of December 29, 2012 is more likely than not based on the future reversal of temporary tax differences and upon future taxable earnings exclusive of reversing temporary differences.

We utilize the "short-cut" method for purposes of determining our hypothetical stock option pool of excess tax benefits. As of December 29, 2012, the stock option pool of excess tax benefits was $28.8 million.

The federal, state and foreign provisions do not reflect certain tax savings resulting from tax benefits associated with our various stock option plans. The savings were credited to additional paid-in-capital for $3.4 million, $1.8 million, and $11.3 million in fiscal 2012, 2011, and 2010, respectively.

We provide U.S. income taxes on the earnings of foreign subsidiaries unless such earnings are considered permanently reinvested in their respective foreign jurisdictions. As of December 29, 2012, the cumulative earnings on which

U.S. income taxes have not been provided were approximately $35.4 million. The amount of unrecognized deferred tax liability related to permanently reinvested earnings is approximately $4.9 million. Foreign earnings were considered to be permanently reinvested in operations outside the U.S.

We evaluate tax positions for recognition using a more-likely-than-not recognition threshold, and those tax positions eligible for recognition are measured as the largest amount of tax benefit that is greater than 50% likely of being realized upon the effective settlement with a taxing authority that has full knowledge of all relevant information.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits from continuing operations is as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Balance at beginning of fiscal year	$10,652	$10,780	$9,561
Gross increases for tax positions related to the current year	912	2,621	1,518
Gross increases for tax positions related to prior years	282	410	3,723
Gross decreases for tax positions related to prior years	(1,069)	(718)	(271)
Settlements	(3)	(1,948)	—
Lapse of statute of limitations	(809)	(493)	(3,751)
Balance at end of fiscal year	$9,965	$10,652	$10,780

Included in the unrecognized tax benefits balance at December 29, 2012, December 31, 2011, and January 1, 2011, was $8.1 million, $8.9 million, and $8.4 million, respectively, which, if recognized, would impact the Company's effective tax rate. Our policy for classifying interest and penalties associated with unrecognized income tax benefits is to include the following items in income tax expense from continuing operations:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Interest	$27	$165	$(365)
Penalties	22	35	(27)

Interest and penalties accrued on the consonsolidated balance sheets as of the end of each fiscal year:

	2012	2011
	(in thousands)	
Interest	$430	$403
Penalties	68	46

We file U.S. federal tax returns, state tax returns and tax returns in other domestic and foreign jurisdictions, including the U.K. and Switzerland. The years 2009 through 2011 remain open to examination for U.S. purposes, 2009 through 2011 for U.K. purposes, 2011 for Switzerland purposes, and 2008 through 2011 in most state jurisdictions. In 2013 and thereafter, it is reasonably possible that we will settle existing audits or close certain years to examination under the relevant statute of limitations. This may further decrease our liability for unrecognized tax benefits by approximately $4.3 million in 2013.

Note 13. Segment Disclosure

The accounting standard for segment reporting establishes standards for reporting information about operating segments in annual financial statements and requires selected information for those segments to be presented in interim financial reports of public business enterprises. It also establishes standards for related disclosures about products and services, geographic areas and major customers. As a result of this evaluation, we determined that we have one operating segment: Cardiovascular group. This segment is organized and operates to develop and manufacture mechanical circulatory products to support the cardiovascular systems.

Product sales attributed to a country or region includes product sales to hospitals, physicians and distributors and is based on final destination where the products are sold. No individual customer accounted for more than 10% of product sales in fiscal 2012, 2011, and 2010. No individual customer accounted for more than 10% of consolidated accounts receivable as of December 29, 2012, and December 31, 2011.

Product sales from continuing operations by source were as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Product sales by geographic location:			
Domestic	$400,526	$347,553	$317,380
International	91,128	75,160	65,593
Total	$491,654	$422,713	$382,973

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Product sales by product line:			
HeartMate	$434,546	$366,321	$333,057
Thoratec	19,035	28,165	29,515
CentriMag	35,723	25,729	17,785
Other	2,350	2,498	2,616
Total	$491,654	$422,713	$382,973

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Product sales by category:			
Pump	$356,310	$298,246	$264,282
Non-Pump	132,994	121,975	116,075
Other	2,350	2,492	2,616
Total	$491,654	$422,713	$382,973

Note 14. Earnings Per Share

Restricted stock awards ("RSA") previously granted under the 2006 Plan are subject to repurchase and have non-forfeitable rights to receive dividends as common stock and therefore are considered participating securities. Under the two-class method, basic and diluted net income per common share are determined by calculating net income per share for common stock and participating securities based on participation rights in undistributed earnings. Dilutive net income per common share also considers the dilutive effect of in-the-money stock options and restricted stock units, calculated using the treasury stock method and the dilutive effect of the senior subordinated convertible notes, calculated using the if-converted method. Under the treasury stock method, the amount of assumed proceeds from unexercised stock options and restricted stock units includes the amount of unrecognized compensation cost attributable to future services, assumed proceeds from the exercise of the options, and the incremental income tax benefit or liability that would be recorded in additional-paid-in capital when the award becomes deductible. In addition, under the if-converted method, cash and non-cash interest expense from the senior subordinated convertible notes are added back to net income and the weighted-average number of common shares that the notes convert into are included in the number of shares used to calculate diluted net income per share.

Basic and diluted income per common share attributable to common shareholders under the two-class method was calculated as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands, except per share data)		
Basic net income per common share calculation			
Income from continuing operations	$56,163	$72,575	$59,005
Income from continuing operations allocated to participating securities	(12)	(123)	(363)
Income from continuing operations attributable to common shareholders	$56,151	$72,452	$58,642
Loss from discontinued operations	$—	$(1,031)	$(5,839)
Loss from discontinued operations allocated to participating securities	—	1	37
Loss from discontinued operations attributable to common shareholders	$—	$(1,030)	$(5,802)
Net income	$56,163	$71,544	$53,166
Net income allocated to participating securities	(12)	(122)	(326)
Net income attributable to common shareholders	$56,151	$71,422	$52,840
Weighted average number of common shares used to compute basic income per common share	58,563	58,777	57,670
Basic net income (loss) per common share			
Continuing operations	$0.96	$1.23	$1.02
Discontinued operations	$—	$(0.02)	$(0.10)
Total	$0.96	$1.21	$0.92
Diluted net income per common share calculation			
Income from continuing operations	$56,163	$72,575	$59,005
Interest expense on senior subordinated convertible notes (after tax)	—	2,719	—
Income from continuing operations allocated to participating securities	(12)	(133)	(358)
Income from continuing operations attributable to common shareholders	$56,151	$75,161	$58,647
Loss from discontinued operations	$—	$(1,031)	$(5,839)
Loss from discontinued operations allocated to participating securities	—	1	38
Loss from discontinued operations attributable to common shareholders	$—	$(1,030)	$(5,801)
Net income	$56,163	$71,544	$53,166
Interest expense on senior subordinated convertible notes (after tax)	—	2,719	—
Net income allocated to participating securities	(12)	(132)	(320)
Net income attributable to common shareholders	$56,151	$74,131	$52,846
Weighted average number of common shares used to compute basic net income per common share attributable to common shares	58,563	58,777	57,670
Dilutive effect of share-based compensation plans	1,017	916	1,401
Dilutive effect on conversion of senior subordinated convertible notes	—	2,831	—
Weighted average number of common shares used to compute diluted net income per common share	59,580	62,524	59,071
Diluted net income (loss) per common share			
Continuing operations	$0.94	$1.20	$0.99
Discontinued operations	$—	$(0.01)	$(0.10)
Total	$0.94	$1.19	$0.89

Potential common share equivalents that have been excluded where the inclusion would be anti-dilutive are as follows:

	Fiscal Years		
	2012	2011	2010
	(in thousands)		
Options to purchase shares not included in the computation of diluted net income per common share because their inclusion would be antidilutive	535	551	363

The computation of diluted net income (loss) per common share for fiscal 2010 excludes the effect of assuming the conversion of our senior subordinated convertible notes, which were convertible at $19.72 per share into 7.2 million shares of common stock because the effect would have been antidilutive. In connection with the ASR Program and based on the VWAP of our common stock from November 26, 2012 to December 29, 2012, the estimated additional shares to be received at settlement would have been approximately 562,000 shares had the ASR Program been settled at December 29, 2012. The computation of diluted net income per common share for fiscal 2012 excludes the effect of assuming the receipt of these additional shares because the effect would be anti-dilutive.

Note 15. Discontinued Operations

On April 25, 2010, our board of directors made a decision to sell our wholly- owned subsidiary ITC and on November 4, 2010, we sold ITC to Nexus for $55.0 million in cash pursuant to the Purchase Agreement. We accounted for the transaction as a sale of discontinued operations, and, accordingly, we have reclassified the results of operations and any losses resulting from the disposition for all periods presented to reflect them as such.

The results of the ITC business are included in discontinued operations on our consolidated statement of operations for the year ended January 1, 2011, as follows:

	Fiscal Year 2010
Product sales	$76,038
Cost of product sales(1)	51,427
Gross profit	24,611
Operating expenses(1) :	
Selling, general and administrative	24,332
Research and development	10,478
Amortization of purchased intangible assets	269
Total operating expenses	35,079
Loss from operations	(10,468)
Other income:	
Other income	40
Loss before income taxes	(10,428)
Income tax benefit (expense)	5,178
Loss on sale of discontinued operations	(589)
Net income (loss) from discontinued operations	$(5,839)

(1) As a result of the sale of ITC, the vesting of outstanding options and restricted stock units held by certain officers and non-officers was accelerated and the related share-based compensation charge of $3.2 million was recorded to cost of product sales or operating expenses for fiscal 2010.

For the year ended December 31, 2011, we recorded a charge of $1.0 million ($1.8 million net loss less tax benefit of $0.8 million), for ITC primarily related to post-close severance payments. All post-close severance payments were paid in fiscal 2011.

Note 16. Quarterly Results of Operations (Unaudited)

The following is a summary of our unaudited quarterly results of operations for the fiscal 2012 and 2011:

	First	Second	Third	Fourth
	(in thousands, except per share data)			
Fiscal Year 2012:				
Product sales	$126,769	$118,659	$117,768	$128,458
Gross profit(1)	87,882	82,637	81,606	39,250
Net income (loss)	25,486	20,808	24,255	(14,386)
Basic net income (loss) per common share	$0.44	$0.35	$0.41	$(0.25)
Diluted net income (loss) per common share	$0.43	$0.35	$0.41	$(0.25)
Fiscal Year 2011:				
Product sales	$99,530	$111,221	$102,584	$109,378
Gross profit	67,758	76,879	69,647	73,366
Net income from continuing operations(2)	16,459	21,782	18,989	15,345
Net loss from discontinued operations(2)	—	—	(1,031)	—
Net income	16,459	21,782	17,958	15,345
Basic net income (loss) per common share from:				
Continuing operations	$0.28	$0.37	$0.32	$0.26
Discontinued operations(2)	$—	$—	$(0.02)	$—
Net income	$0.28	$0.37	$0.30	$0.26
Diluted net income (loss) per common share from:				
Continuing operations	$0.27	$0.36	$0.31	$0.25
Discontinued operations(2)	$—	$—	$(0.02)	$—
Net income	$0.27	$0.36	$0.29	$0.25

(1) Gross profit in the fourth quarter of 2012 includes an impairment charge of $50.2 million. Refer to Note 6 above for additional discussion of impairment charge in the Notes to Consolidated Financial Statements in this Annual Report on Form 10-K.

(2) During fiscal 2010, we completed the sale of ITC. We accounted for the transaction as a sale of discontinued operations, and, accordingly, we have reclassified the results of operations and any losses resulting from the disposition for all periods presented to reflect them as such.

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

None.

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

Attached as exhibits to this Annual Report on 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.

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 29, 2012. 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 29, 2012, 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 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 for 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 29, 2012, 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 29, 2012. 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 our internal control over financial reporting, which is included in Item 8 of this Annual Report on Form 10-K.

Changes to Internal Controls

There have been no changes in our internal controls over financial reporting during the quarter ended December 29, 2012 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.

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 29, 2012, 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 incorporated herein by reference from the information under the captions "Board of Directors Structure and Compensation," "Election of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance," "Code of Ethics and Corporate Governance," 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 2013 annual meeting of shareholders.

Item 11. ***Executive Compensation***

The information required by Item 11 is incorporated herein by reference from the information under the captions "Board of Directors Structure and Compensation," "Compensation Discussion and Analysis," "Report of the Compensation and Option Committee of the Board of Directors" and "Executive Compensation" in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2013 annual meeting of shareholders.

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

The information required by Item 12 is incorporated herein by reference from the information under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Securities Authorized for Issuance Under Equity

Compensation Plans" in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2013 annual meeting of shareholders.

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

The information required by Item 13 is incorporated herein by reference from the information under the caption "Certain Transactions" in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2013 annual meeting of shareholders.

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

The information required by Item 14 is incorporated herein by reference from the information under the caption "Fees Paid to Accountants for Services Rendered During Fiscal Years 2012 and 2011" in the definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for our 2013 annual meeting of shareholders.

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.

2. Financial Statement Schedules

   Schedule II—Valuation and Qualifying Accounts and Reserves for each of the three fiscal years ended December 29, 2012, December 31, 2011 and January 1, 2011. 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 81 of this Annual Report on Form 10-K, where these documents are included.

THORATEC CORPORATION

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

For Each of the Three Fiscal Years:

	Balance Beginning of Year	Additions (charges to expense)	Deductions	Balance End of Year
		(in thousands)		
Year Ended December 29, 2012(1):				
Allowance for doubtful accounts	$2,153	$36	$(62)	$2,127
Year Ended December 31, 2011(1):				
Allowance for doubtful accounts	$1,334	$1,206	$(387)	$2,153
Year Ended January 1, 2011(1):				
Allowance for doubtful accounts	$322	$1,012	$—	$1,334

(1) The valuation and qualifying accounts and reserves.

EXHIBIT INDEX

Exhibit Number	Exhibit
2.1	Agreement and Plan of Merger by and among Levitronix LLC, Levitronix Technologies LLC, Pharos, LLC the Sellers named herein, the Consenting Parent Equity Holders named herein, Pharos, LLC, as the Sellers Representative, Thoratec Corporation, as the Purchaser, and Revere Merger Sub, LLC, as the Transitory Subsidiary dated as of August 3, 2011.(6)
3.1	Thoratec's Articles of Incorporation, as amended.(2)
3.2	Thoratec's By-Laws, as amended February 25, 2005.(3)
4.1	Rights Agreement between Thoratec Corporation and Computershare Trust Company, Inc. as Rights Agent dated as of May 2, 2002.(4)
10.1	Form of Indemnification Agreement between Thoratec Cardiosystems and its officers and directors.(7)
10.2	Lease Agreement dated July 25, 1996, between Main Street Associates and Thoratec, as amended.(9)
10.3	First Amendment to Lease Agreement originally between Main Street Associates and Thoratec dated July 25, 1996.(10)
10.4	Second Amendment to Lease Agreement originally between Main Street Associates and Thoratec dated July 25, 1996.(11)
10.5	Thoratec's 1997 Stock Option Plan, as amended.(12)*
10.6	Thoratec's 2002 Employee Stock Purchase Plan.(13)*
10.7	Grantor Trust Agreement between Thoratec and Wachovia Bank, National Association effective as of November 21, 2003.(8)
10.8	Description of the Executive Disability Income Protection Program.(14)*
10.9	Amended and Restated Employment Agreement by and between Thoratec and Gerhard F. Burbach, dated April 23, 2007.(16)*
10.10	Amended and Restated Separation Benefits Agreement by and between Thoratec and David A. Lehman, dated April 23, 2007.(16)*
10.11	Thoratec Corporation Amended and Restated Nonqualified Deferred Compensation Plan.(17)*
10.12	Description of Director Compensation Program.
10.13	Thoratec Corporation Corporate Executive Incentive Plan FY 2011, effective for certain executive officers of the Company.(15)*
10.14	Amendment to the Amended and Restated Employment Agreement by and between Thoratec and Gerhard F. Burbach, dated November 16, 2009.(5)*
10.15	Amendment to the Amended and Restated Separation Benefits Agreement by and between Thoratec and David A. Lehman, dated November 16, 2009.(5)*
10.16	Transition and separation agreement by and between Throatec and Roxanne Oulman, dated October 10, 2012*
10.17	Separation Benefits Agreement by and between Thoratec and Taylor C. Harris, dated October 10, 2012
10.18	Credit Agreement, dated as of December 19, 2011, among Thoratec, the financial institutions from time-to-time party thereto as lenders and Wells Fargo Bank, National Association, as administrative agent for the lenders.(18)
10.19	Third Amendment to Lease, by and among Thoratec, Main StreetS Associates, and EJC Partners, L.P. dated October 6, 2011.(17)
10.20	Thoratec Corporation Corporate Executive Incentive Plan FY 2012, effective for certain executive officers of the Company.(19)*
10.21	Thoratec Corporation Amended and Restated 2006 Incentive Stock Plan.(1)*
21	Subsidiaries of Thoratec.
23.1	Consent of Independent Registered Public Accounting Firm.
24	Power of Attorney—Reference is made to page 103 hereof.
31.1	Section 302 Certification of Chief Executive Officer.
31.2	Section 302 Certification of Chief Financial Officer.

Exhibit Number	Exhibit
32.1	Section 906 Certification of Chief Executive Officer.
32.2	Section 906 Certification of Chief Financial Officer.
101**	The following materials from Registrant's Annual Report on Form 10-K for the year ended December 29, 2012, formatted in Extensible Business Reporting Language (XBRL) includes: (i) Consolidated Balance Sheets as of December 29, 2012, and December 31, 2011, (ii) Consolidated Statements of Operations for the years ended December 29, 2012, December 31, 2011, and January 1, 2011, (iii) Consolidated Statements of Comprehensive Income for the for the years ended December 29, 2012, December 31, 2011, and January 1, 2011, (iv) Consolidated Statements of Shareholders' Equity for the years ended December 29, 2012, December 31, 2011, and January 1, 2011, (v) Consolidated Statements of Cash Flows for the years ended December 29, 2012, December 31, 2011, and January 1, 2011, and (vi) Notes to Consolidated Financial Statements.

(1) Filed as an Exhibit to Thoratec's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2012, filed with the SEC on August 2, 2012.

(2) 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.

(3) Filed as an Exhibit to Thoratec's Form 8-K filed with the SEC on March 3, 2005, and incorporated herein by reference.

(4) 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.

(5) Filed as an Exhibit to Thoratec's Annual Report on Form 10-K for the fiscal year ended January 1, 2011, filed with the SEC on February 24, 2010, and incorporated herein by reference.

(6) Filed as an Exhibit to Thoratec's Quarterly Report on Form 10-Q for the fiscal quarter ended October 1, 2011, filed with the SEC on November 7, 2011, and incorporated herein by reference.

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

(8) 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.

(9) 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.

(10) 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.

(11) 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.

(12) 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.

(13) Filed as an Exhibit to Thoratec's Registration Statement on Form S-8filed with the SEC on July 25, 2012251, (Registration No. 333-182843182843), and incorporated herein by reference.

(14) 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.

(15) Filed as an Exhibit to Thoratec's Quarterly Report on Form 10-Q for the fiscal quarter ended April 3, 2010, filed with the SEC on May 5, 2010, and incorporated herein by reference.

(16) Filed as an Exhibit to Thoratec's Form 8-K filed with the SEC on April 27, 2007.

(17) Filed as an Exhibit to Thoratec's Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the SEC on February 21, 2012.

(18) Filed as an Exhibit to Thoratec's Form 8-K filed with the SEC on December 22, 2011.

(19) Filed as an Exhibit to Thoratec's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2012, filed with the SEC on May 8, 2012.

* Indicates a management contract or compensatory plan.

** Furnished herewith

SIGNATURES

Pursuant to the requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THORATEC CORPORATION

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

Date: February 20, 2013

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Gerhard F. Burbach and David A. Lehman, and each of them, his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, to act for him or her and in his or her 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 (Principal Executive Officer)	February 20, 2013
/s/ TAYLOR C. HARRIS Taylor C. Harris	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	February 20, 2013
/s/ NEIL F. DIMICK Neil F. Dimick	Director and Chairman of the Board of Directors	February 20, 2013
/s/ J. DANIEL COLE J. Daniel Cole	Director	February 20, 2013
/s/ STEVEN H. COLLIS Steven H. Collis	Director	February 20, 2013
/s/ ELISHA W. FINNEY Elisha W. Finney	Director	February 20, 2013
/s/ D. KEITH GROSSMAN D. Keith Grossman	Director	February 20, 2013
/s/ WILLIAM A. HAWKINS William A. Hawkins	Director	February 20, 2013
/s/ PAUL A. LAVIOLETTE Paul A. LaViolette	Director	February 20, 2013
/s/ DANIEL M. MULVENA Daniel M. Mulvena	Director	February 20, 2013

EXHIBIT 21

THORATEC CORPORATION

Subsidiaries of the Registrant as of the date of this report:

Subsidiary	Jurisdiction of Incorporation or Organization	Percentage of Ownership
Continuum Services, Inc.	Delaware	100%
Thoratec Europe Limited	United Kingdom	100%
Thoratec LLC	Delaware	100%
Thoratec Switzerland GmbH	Switzerland	100%

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements on Form S-3 (No. 333-118274, No. 333-97783, No. 333-72128, No. 333-61136, and No. 333-32684), Registration Statements on Form S-8 (No. 333-182843, No. 333-176422, No. 333-167287, No. 333-158860, No. 333-151102, No. 333-150527, No. 333-135047, No. 333-106238, No. 333-90768, No. 333-80807, No. 333-56212, No. 333-32223, No. 333-11883, No. 33-35549 and No. 33-72502), Post-Effective Amendment No. 1 to Registration Statement No. 333-90768, Post-Effective Amendment No. 1 to Registration Statement No. 2-97542, Post-Effective Amendment No. 1 to Registration Statement No. 2-78926, and Post-Effective Amendment No. 3 to Registration Statement No. 2-78925, of our report dated February 20, 2013, relating to the consolidated financial statements and the financial statement schedule of Thoratec Corporation and our report dated February 20, 2013, relating to the effectiveness of Thoratec Corporation's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Thoratec Corporation for the year ended December 29, 2012.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
February 20, 2013

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Gerhard F. Burbach, certify that:

1. I have reviewed this annual report on Form 10-K of Thoratec Corporation;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

d) disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ GERHARD F. BURBACH
Gerhard F. Burbach
Chief Executive Officer

February 20, 2013

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Taylor C. Harris, certify that:

1. I have reviewed this annual report on Form 10-K of Thoratec Corporation;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

d) disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ TAYLOR C. HARRIS

Taylor C. Harris
Chief Financial Officer

February 20, 2013

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Thoratec Corporation (the "Company") for the period ending December 29, 2012, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gerhard F. Burbach, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ GERHARD F. BURBACH
Gerhard F. Burbach
Chief Executive Officer

February 20, 2013

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Thoratec Corporation (the "Company") for the period ending December 29, 2012 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Taylor C. Harris, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ TAYLOR C. HARRIS
Taylor C. Harris
Chief Financial Officer

February 20, 2013

Corporate Directory

BOARD OF DIRECTORS

Neil F. Dimick
Chairman of the Board
Executive Vice President and Chief Financial Officer, AmerisourceBergen Corporation (Retired)
Laguna Hills, California

Gerhard F. Burbach
President, Chief Executive Officer and Director

J. Daniel Cole
General Partner, Spray Venture Partners
Venture Partner, Oxford Bioscience Partners
Boston, Massachusetts

Steven H. Collis
President and Chief Executive Officer, AmerisourceBergen Corporation
Valley Forge, Pennsylvania

Elisha W. Finney
Executive Vice President and Chief Financial Officer, Varian Medical Systems, Inc.
Palo Alto, California

D. Keith Grossman
President and Chief Executive Officer, Conceptus, Inc.
Mountain View, California

William A. Hawkins, III
President and Chief Executive Officer, Immucor, Inc.
Norcross, Georgia

Paul A. LaViolette
Partner, SV Life Sciences
Boston, Massachusetts

Daniel M. Mulvena
Founder and Owner, Commodore Associates
Wilmington, Delaware

EXECUTIVE OFFICERS

Gerhard F. Burbach
President, Chief Executive Officer and Director

David A. Lehman
Senior Vice President, General Counsel and Secretary

Taylor C. Harris
Vice President and Chief Financial Officer

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Deloitte & Touche LLP
San Francisco, California

STOCK TRANSFER AGENT

Computershare Trust Company, N.A.
250 Royal Street
Canton, Massachusetts 02021
1.800.962.4284

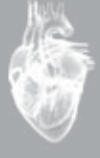
ADDITIONAL INFORMATION

For more information, please write to:
Corporate Secretary
Thoratec Corporation
6035 Stoneridge Drive
Pleasanton, California 94588
www.thoratec.com

ANNUAL MEETING

The Company's annual meeting of shareholders will be held May 22, 2013 at 8:00 a.m.

TRADEMARKS



Tomorrow depends on the decisions we make today.

THORATEC® CORPORATION *for Life*

THORATEC CORPORATION / 6035 STONERIDGE DRIVE, PLEASANTON, CA 94588 / TEL 925.847.8600 / FAX 925.847.8574 / WWW.THORATEC.COM