

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5493474

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	THORATEC LLC	12/20/2016
RECEIVING PARTY DATA		
Name:	TC1 LLC	
Street Address:	ONE ST. JUDE MEDICAL DRIVE	
City:	ST. PAUL	
State/Country:	MINNESOTA	
Postal Code:	55117	
PROPERTY NUMBERS Total: 1		
Property Type	Number	
Application Number:	14015630	
CORRESPONDENCE DATA		
Fax Number:	(650)326-2422	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
Phone:	650-326-2400	
Email:	omontesc@kilpatricktownsend.com	
Correspondent Name:	NENA BAINS	
Address Line 1:	KILPATRICK TOWNSEND AND STOCKTON LLP	
Address Line 2:	1100 PEACHTREE STREET, SUITE 2800	
Address Line 4:	ATLANTA, GEORGIA 30309	
ATTORNEY DOCKET NUMBER:	096205-006920US-0898012	
NAME OF SUBMITTER:	OMAR MONTES CHAVEZ	
SIGNATURE:	/Omar Montes Chavez/	
DATE SIGNED:	04/25/2019	
Total Attachments: 37 source=llc to tc1#page1.tif source=llc to tc1#page2.tif source=llc to tc1#page3.tif source=llc to tc1#page4.tif source=llc to tc1#page5.tif		

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CONFIRMATORY ASSIGNMENT

WHEREAS, Thoratec Corporation was converted to Thoratec LLC pursuant to the Articles of Organization – Conversion, filed on November 12, 2015.

WHEREAS, Thoratec LLC, a Limited Liability Company of California, having its principal place of business at 6035 Stoneridge Drive, Pleasanton, California 94588 ("Assignor"), has heretofore sold, transferred, and conveyed to TC1 LLC, a Limited Liability Company having a principal place of business at One St. Jude Medical Drive, St. Paul, Minnesota 55117 ("Assignee"), all of its right, title, and interest, in and to certain inventions, patents, and patent applications as set forth in Exhibit A attached hereto, as part of an assignment agreement dated November 16, 2015.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is acknowledged, Assignor hereby confirms that Assignor did sell, transfer, and convey unto Assignee all right, title, and interest in and to the following:

- (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the below-referenced patent applications in Exhibit A, implicitly or explicitly;
- (b) the below-referenced patent applications in Exhibit A, the right to claim priority to the below-referenced patent applications in Exhibit A, all applications based in whole or in part upon the below-referenced patent applications in Exhibit A, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent applications or application for other rights based in whole or in part on the below-referenced patent applications in Exhibit A;
- (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and
- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.

Assignor hereby authorizes and requests the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or

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documents, resulting from the intellectual property, patent application(s) and patents described in this Confirmatory Assignment.

Assignor hereby agrees to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in this Confirmatory Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.

Assignor hereby agrees that the terms, covenants, and conditions of this Confirmatory Assignment shall be binding upon and inure to the benefit of the Assignee, its successors, assigns and other legal representative.

Assignor hereby promises and affirms that Assignor has not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Confirmatory Assignment.

In Witness Whereof, Assignor and Assignee have executed this Confirmatory Assignment on the dates indicated below.

Dated: 12/20/2014

Jason Zellers
Title: Secretary
TC1 LLC, Assignee

Dated: 12/20/2014

Jason Zellers
Title: Vice President & Secretary
Thoratec LLC, Assignor

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Exhibit A

KTS Ref. No.	Thoratec Ref. No.	Country	Title	Application/Patent Serial No.	Filing/Issue Date	Current Owner
096205-0896859 (000100AU)	THOR-PO1062AU	AU	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	2009357383	12/30/09	Thoratec Corporation
096205-0896860 (000100CA)	THOR-PO1062CA	CA	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	2,785,963	12/30/09	Thoratec Corporation
096205-1008284 (000100DE)	THOR-PO1062DE1	DE	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	09809083.0 2519274	12/30/09 04/20/16	Thoratec Corporation
096205-0896861 (000100EP)	THOR-PO1062EP1	EP	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	09809083.0 2519274	12/30/09 04/20/16	Thoratec Corporation
096205-1008285 (000100FR)	THOR-PO1062FR1	FR	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	09809083.0 2519274	12/30/09 04/20/16	Thoratec Corporation
096205-1008286 (000100GB)	THOR-PO1062GB1	UK	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	09809083.0 2519274	12/30/09 04/20/16	Thoratec Corporation
096205-0896858 (000100PC)	THOR-PO1062WD	PCT	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	PCT/US2009/069811	12/30/09	Thoratec Corporation
096205-0891818 (000100US)	THOR-PO1062	US	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	12/649,701 8,562,508	12/30/09 10/22/13	Thoratec Corporation
096205-0962266 (000110DE)	THOR-PO1062DE2	DE	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	12181175.6 602009035	12/30/09 12/9/15	Thoratec Corporation
096205-0897067 (000110EP)	THOR-PO1062EP2	EP	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	12181175.6 2530789	12/30/09 12/9/15	Thoratec Corporation
096205-0962268 (000110FR)	THOR-PO1062FR2	FR	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	12181175.6 2530789	12/30/09 12/9/15	Thoratec Corporation
096205-0962267 (000110GB)	THOR-PO1062GB2	UK	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	12181175.6 2530789	12/30/09 12/9/15	Thoratec Corporation
096205-0891819 (000110US)	THOR-PO1062C	US	MOBILITY-ENHANCING BLOOD PUMP SYSTEM	14/057,519	10/18/13	Thoratec Corporation
096205-0892364 (000200US)	THOR-PO1077A1	US	PUMPING BLOOD	61/392,811	10/13/10	Thoratec Corporation
096205-0892366 (000210US)	THOR-PO1077A2	US	PUMPING BLOOD	61/393,241	10/14/10	Thoratec Corporation
096205-0892382 (000220AU)	THOR-PO1077AU	AU	PUMPING BLOOD	2011315969 2011315969	10/13/11 1/21/16	Thoratec Corporation
096205-0892381 (000220CA)	THOR-PO1077CA	CA	PUMPING BLOOD	2,814,122	10/13/11	Thoratec Corporation

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096205-1022260 (000220BE)	THOR- P01077DE	DE	PUMPING BLOOD	11774158.8 2627366	10/13/11 8/31/16	Thoratec Corporation
096205-0892383 (000220EP)	THOR- P01077EP	EP	PUMPING BLOOD	11774158.8 2627366	10/13/11 8/31/16	Thoratec Corporation
096205-1022262 (000220FR)	THOR- P01077FR	FR	PUMPING BLOOD	11774158.8 2627366	10/13/11 8/31/16	Thoratec Corporation
096205-1022261 (000220GB)	THOR- P01077GB	UK	PUMPING BLOOD	11774158.8 2627366	10/13/11 8/31/16	Thoratec Corporation
096205-0892384 (000220PC)	THOR- P01077WO	PCT	PUMPING BLOOD	PCT/US2011/056217	10/13/11	Thoratec Corporation
096205-0892380 (000220TW)	THOR- P01077TW	TW	PUMPING BLOOD	100137160	10/13/11	Thoratec Corporation
096205-0892386 (000220US)	THOR- P01077	US	PUMPING BLOOD	13/273,185 9,265,870	10/13/11 2/23/16	Thoratec Corporation
096205-1003375 (000221EP)	THOR- P01077EP2	EP	PUMPING BLOOD	161628334	10/13/11	Thoratec Corporation
096205-0966603 (000221US)	THOR- P01077C	US	PUMPING BLOOD	14/982,960	12/29/15	Thoratec Corporation
096205-0896116 (000300US)	THOR- P01054A	US	MEDICAL DEVICE CONTROLLER AND ACCESSORY CARRIER	61/115,796	11/18/08	Thoratec Corporation
096205-0896122 (000310AU)	THOR- P01054AU	AU	MEDICAL DEVICE ACCESSORY CARRIER	2009316729	11/17/09	Thoratec Corporation
096205-0896123 (000310CA)	THOR- P01054CA	CA	MEDICAL DEVICE ACCESSORY CARRIER	2,744,0545	11/17/09	Thoratec Corporation
096205-0896124 (000310EP)	THOR- P01054EP	EP	MEDICAL DEVICE ACCESSORY CARRIER	0982811199 2358288	11/17/09 8/24/11	Thoratec Corporation
096205-0896121 (000310HK)	THOR- P01054HK	HK	MEDICAL DEVICE ACCESSORY CARRIER	1110954.7	11/17/09	Thoratec Corporation
096205-0896127 (000310JP)	THOR- P01054JP	JP	MEDICAL DEVICE ACCESSORY CARRIER	2011536603 2012-509109	11/17/09 4/19/12	Thoratec Corporation
096205-0896128 (000310PC)	THOR- P01054WO	PCT	MEDICAL DEVICE ACCESSORY CARRIER	PCT/US2009/064835	11/17/09	Thoratec Corporation
096205-0896129 (000310US)	THOR- P01054	US	MEDICAL DEVICE ACCESSORY CARRIER	12/620,306 8,807,412	11/17/09 8/19/14	Thoratec Corporation
096205-0896837 (000400US)	THOR- P01029	US	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP	08/424,165 5,558,812	04/19/95 12/31/96	Thoratec Corporation
096205-0896175 (000410CA)	THOR- P01029CA	CA	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED	2,265,612 2,265,612	12/27/96 03/13/07	Thoratec Corporation

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			BEARING			
096205-0898500 (000410DE)	THOR-P01029DE	DE	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	96944908.1 69630815	12/27/96 11/19/03	Thoratec Corporation
096205-0896170 (000410EP)	THOR-P01029EP	EP	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	96944908.1 0925451	12/27/96 11/19/03	Thoratec Corporation
096205-0898501 (000410ES)	THOR-P01029ES	ES	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	96944908.1 0925451	12/27/96 11/19/03	Thoratec Corporation
096205-0898502 (000410FR)	THOR-P01029FR	FR	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	96944908.1 0925451	12/27/96 11/19/03	Thoratec Corporation
096205-0898503 (000410GB)	THOR-P01029GB	GB	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	96944908.1 0925451	12/27/96 11/19/03	Thoratec Corporation
096205-0898504 (000410IT)	THOR-P01029IT	IT	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	96944908.1 0925451	12/27/96 11/19/03	Thoratec Corporation
096205-0896164 (000410JP)	THOR-P01029JP1	JP	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	10-513607	12/27/96	Thoratec Corporation
096205-0898515 (000410PC)	THOR-P01029XWO	PCT	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	PCT/US1996/0202363	12/27/96	Thoratec Corporation
096205-0898518 (000410US)	THOR-P01029X	US	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	08/710,211 5,707,218	09/13/96 01/13/98	Thoratec Corporation
096205-0898517 (000411US)	THOR-P01029XC	US	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	08/972,317 5,951,263	11/18/97 09/14/99	Thoratec Corporation
096205-0896163 (000411JP)	THOR-P01029JP2	JP	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	2008-054326	12/27/96	Thoratec Corporation
096205-0896126 (000412JP)	THOR-P01029JP3	JP	IMPLANTABLE ELECTRIC AXIAL-FLOW BLOOD PUMP WITH BLOOD COOLED BEARING	11793033.9	06/07/11	Thoratec Corporation
096205-0897282 (000500US)	THOR-P01075A	US	BI-VENTRICULAR PERCUTANEOUS CABLE	61/352,087	6/7/10	Thoratec Corporation
096205-0897286 (000510AU)	THOR-P01075AU	AU	BI-VENTRICULAR PERCUTANEOUS CABLE	2011265023	06/07/11	Thoratec Corporation
096205-	THOR-	CA	BI-VENTRICULAR	2,801,719	06/07/11	Thoratec Corporation

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0897286 (000510CA)	PO1075CA		PERCUTANEOUS CABLE			
096205- 0897288 (000510EP)	THOR- PO1075EP	EP	BI-VENTRICULAR PERCUTANEOUS CABLE	11793033.9	06/07/11	Thoratec Corporation
096205- 0897283 (000510US)	THOR- PO1075	US	BI-VENTRICULAR PERCUTANEOUS CABLE	13/155,009 8,388,384	06/07/11 03/05/13	Thoratec Corporation
096205- 0897291 (000510PC)	THOR- PO1075WO	PCT	BI-VENTRICULAR PERCUTANEOUS CABLE	PCT/US2011/039466	06/07/11	Thoratec Corporation
096205- 0897290 (000510TW)	THOR- PO1075TW	TW	BI-VENTRICULAR PERCUTANEOUS CABLE	100119848	06/07/11	Thoratec Corporation
096205- 0896292 (000511US)	THOR- PO1075C1	US	BI-VENTRICULAR PERCUTANEOUS CABLE	13/784,107 8,668,526	03/04/13 03/11/14	Thoratec Corporation
096205- 0897352 (000512US)	THOR- PO1075C2	US	BI-VENTRICULAR PERCUTANEOUS CABLE	14/153,802	1/13/14	Thoratec Corporation
096205- 0898664 (000600US)	THOR- PO1073A	US	CONTROLLING IMPLANTED BLOOD PUMPS	61/366,757	7/22/10	Thoratec Corporation
096205- 0898661 (000610PC)	THOR- PO1073WO	PCT	CONTROLLING IMPLANTED BLOOD PUMPS	PCT/US2011/044707	07/20/11	Thoratec Corporation
096205- 0898665 (000610TW)	THOR- PO1073TW	TW	CONTROLLING IMPLANTED BLOOD PUMPS	1001255856	07/21/11	Thoratec Corporation
096205- 0896943 (000610US)	THOR- PO1073	US	CONTROLLING IMPLANTED BLOOD PUMPS	13/188,510 8,721,719	07/22/11 05/13/14	Thoratec Corporation
096205- 0903712 (000611US)	THOR- PO1073C	US	CONTROLLING IMPLANTED BLOOD PUMPS	14/223,029	03/24/14	Thoratec Corporation
096205- 0896942 (000700US)	THOR- PO1127	US	VENTRICULAR CUFF	13/842,578 9,199,019	03/15/13 12/01/15	Thoratec Corporation
096205- 0903018 (000710US)	THOR- PO1135A	US	VENTRICULAR CUFF	61/949,113	3/8/14	Thoratec Corporation
096205- 0962290 (000710US)	THOR- PO1127D	US	VENTRICULAR CUFF	14/932,696	11/04/15	Thoratec Corporation
096205- 0903132 (000710PC)	THOR- PO1127WO	PCT	VENTRICULAR CUFF	PCT/US2014/021389	3/6/14	Thoratec Corporation
096205- 0937632 (000720US)	THOR- PO1151A	US	VENTRICULAR CUFF	62/127,262	3/2/15	Thoratec Corporation
096205- 1012828 (000730EP)	THOR- PO1135EP	EP	VENTRICULAR CUFF	15757834.5	03/06/15	Thoratec Corporation
096205- 0938328 (000730PC)	THOR- PO1135WO	PCT	VENTRICULAR CUFF	PCT/US2015/019308	03/06/15	Thoratec Corporation
096205-	THOR-	US	VENTRICULAR CUFF	14/641,164	03/06/15	Thoratec Corporation

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0936254 (000730US)	P01135					
096205- 0898019 (000800US)	THOR- P01060	US	MULTI-LUMEN CANNULA	12/469,328 8,231,519	5/20/09 7/31/12	Thoratec Corporation
096205- 0898008 (000810CA)	THOR- P01060CA	CA	MULTI-LUMEN CANNULA	2,762,569	5/10/10	Thoratec Corporation
096205- 0896941 (000810US)	THOR- P01060C	US	MULTI-LUMEN CANNULA	13/561,197	7/30/12	Thoratec Corporation
096205- 0898649 (000900US)	THOR- P01059	US	BLOOD FLOW METER	12/394,244 8,448,444	02/27/09 05/28/13	Thoratec Corporation
096205- 0898654 (000910PC)	THOR- P01059WO	PCT	BLOOD FLOW METER	PCT/US2010/025376	02/25/10	Thoratec Corporation
096205- 0896932 (000910US)	THOR- P01059C	US	BLOOD FLOW METER	13/866,740 8,715,151	04/19/13 05/06/14	Thoratec Corporation
096205- 0898662 (001010AU)	THOR- P01061AU	AU	MONITORING OF REDUNDANT CONDUCTORS	2010253836 2010253836	05/27/10 10/24/13	Thoratec Corporation
096205- 0898007 (001010CA)	THOR- P01061CA	CA	MONITORING OF REDUNDANT CONDUCTORS	2,763,029 2,763,029	05/27/10 11/18/14	Thoratec Corporation
096205- 0898671 (001010DE)	THOR- P01061DE	DE	MONITORING OF REDUNDANT CONDUCTORS	10728950.6 602010006413.1	05/27/10 04/17/13	Thoratec Corporation
096205- 0898667 (001010EP)	THOR- P01061EP1	EP	MONITORING OF REDUNDANT CONDUCTORS	10728950.6 2435105	05/27/10 04/17/13	Thoratec Corporation
096205- 0898670 (001010FR)	THOR- P01061FR	FR	MONITORING OF REDUNDANT CONDUCTORS	10728950.6 2435105	05/27/10 04/17/13	Thoratec Corporation
096205- 0898669 (001010GB)	THOR- P01061GB	GB	MONITORING OF REDUNDANT CONDUCTORS	10728950.6 2435105	05/27/10 04/17/13	Thoratec Corporation
096205- 0898666 (001010HK)	THOR- P01061HK	HK	MONITORING OF REDUNDANT CONDUCTORS	12104857.0 HK1164180	05/27/10 08/16/13	Thoratec Corporation
096205- 0898674 (001010IE)	THOR- P01061IE	IE	MONITORING OF REDUNDANT CONDUCTORS	10728950.6 2435105	05/27/10 04/17/13	Thoratec Corporation
096205- 0896963 (001010JP)	THOR- P01061JP1	JP	MONITORING OF REDUNDANT CONDUCTORS	2012-513263 5580885	05/27/10 07/18/14	Thoratec Corporation
096205- 0898673 (001010NL)	THOR- P01061NL	NL	MONITORING OF REDUNDANT CONDUCTORS	10728950.6 2435105	05/27/10 04/17/13	Thoratec Corporation
096205- 0896672 (001010PC)	THOR- P01061WO	PCT	MONITORING OF REDUNDANT CONDUCTORS	PCT/US2010/036439	05/27/10	Thoratec Corporation
096205- 0898663 (001010US)	THOR- P01061	US	MONITORING OF REDUNDANT CONDUCTORS	12/472,812	05/27/09	Thoratec Corporation

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096205-0898020 (001011EP)	THOR- P01061EP2	EP	MONITORING OF REDUNDANT CONDUCTORS	13157207.5	05/27/10	Thoratec Corporation
096205-0900089 (001011JP)	THOR- P01061JP2	JP	ADAPTIVE CONTROL ALGORITHMS, FLOW ESTIMATION, AND FAILURE DETECTION	2014-034767 5833156	05/27/10 11/06/15	Thoratec Corporation
096205-0933523 (001011US)	THOR- P01061C1	US	MONITORING OF REDUNDANT CONDUCTORS	14/719,045	05/21/15	Thoratec Corporation
096205-0897277 (001100US)	THOR- P01000	US	BLOOD PUMP AND METHOD OF PUMPING BLOOD	05/912,033 4,222,127	06/02/78 09/16/80	Thoratec Corporation
096205-0897278 (001200US)	THOR- P01001	US	INTRA-AORTIC BALLOON	06/128,580 4,311,133	03/10/80 01/19/82	Thoratec Corporation
096205-0897280 (001300CA)	THOR- P01002CA	CA	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	396,208 1181813	2/12/82 2/5/85	Thoratec Laboratories Corporation
096205-0897281 (001300DE)	THOR- P01002DE	DE	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	P32047207	2/11/82	Thoratec Corporation
096205-0897335 (001300FR)	THOR- P01002FR	FR	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	82/02306 2499901	2/12/82 7/28/86	Thoratec Corporation
096205-0897334 (001300GB)	THOR- P01002GB	GB	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	8203811 2092944	2/10/82 8/21/85	Thoratec Corporation
096205-0897330 (001300JP)	THOR- P01002JP1	JP	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	57-021008 1564455	2/12/82 6/12/90	Thoratec Corporation
096205-0897333 (001310JP)	THOR- P01002JP2	JP	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	21008/1982 1564455	2/12/82 6/12/90	Thoratec Corporation
096205-0897279 (001300US)	THOR- P01002	US	DEVICE AND METHOD FOR FABRICATING MULTI-LAYER TUBING	06/234,120 4409172	2/13/81 4409172	Thoratec Corporation
096205-0897341 (001400CA)	THOR- P01003CA	CA	ARTERIAL GRAFT PROSTHESIS	396,176 1207105	2/12/82 7/8/86	Thoratec Corporation Thoratec Laboratories Corporation
096205-0897437 (001400DE)	THOR- P01003DE	DE	ARTERIAL GRAFT PROSTHESIS	P3204719.3	2/11/82	Thoratec Corporation
096205-0897436 (001400FR)	THOR- P01003FR	FR	ARTERIAL GRAFT PROSTHESIS	8202307	2/12/82	Thoratec Corporation
096205-0897435 (001400GB)	THOR- P01003GB	GB	ARTERIAL GRAFT PROSTHESIS	8202810 2092894	2/10/82 3/13/85	Thoratec Corporation
096205-0897434 (001400JP)	THOR- P01003JP	JP	ARTERIAL GRAFT PROSTHESIS	57-21007	2/12/82	Thoratec Corporation
096205-	THOR-	US	ARTERIAL GRAFT	06/234,116	2/13/81	Thoratec Corporation

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0897344 (001400US)	PO1003		PROSTHESIS	4,604,762	8/12/86	
096205- 0897438 (001410US)	THOR- PO1003D	US	ARTERIAL GRAFT PROSTHESIS	06/612,997 4,731,073	5/21/84 3/15/88	Thoratec Corporation
096205- 0897456 (001500GB)	THOR- PO1004GB	GB	METHOD OF FORMING POLYMER MIXTURE OF LOW SURFACE FREE ENERGY	8105685.5 GB2073219	2/23/81 2/27/85	Thoratec Corporation
096205- 0897452 (001600GB)	THOR- PO1005GB	GB	BLOOD COMPATIBLE POLYMER MIXTURE	8407416 2140438	2/23/81 6/5/85	Thoratec Corporation
096205- 0897455 (001700GB)	THOR- PO1006GB	GB	BIOMEDICAL DEVICE WITH BLOOD- COMPATIBLE SURFACE	8407415.2 GB2140437	2/23/81 6/5/85	Thoratec Corporation
096205- 0897464 (001800CA)	THOR- PO1007CA	CA	COMBINATION MEMBRANING TOOL, PACKAGE AND CALIBRATION UNIT FOR EYELID SENSOR OR THE LIKE	401,211 1196177	4/19/82 11/5/85	Thoratec Laboratories Corporation
096205- 0897463 (001800DE)	THOR- PO1007DE	DE	COMBINATION MEMBRANING TOOL, PACKAGE AND CALIBRATION UNIT FOR EYELID SENSOR OR THE LIKE	P3214527.6 3214527	4/20/82 11/7/84	Thoratec Corporation
096205- 0897462 (001800FR)	THOR- PO1007FR	FR	COMBINATION MEMBRANING TOOL, PACKAGE AND CALIBRATION UNIT FOR EYELID SENSOR OR THE LIKE	82/06688 8206688	4/19/82 12/2/85	Thoratec Corporation
096205- 0897465 (001800GB)	THOR- PO1007GB	UK	COMBINATION MEMBRANING TOOL, PACKAGE AND CALIBRATION UNIT FOR EYELID SENSOR OR THE LIKE	8211374 2099586	4/20/82 7/24/85	Thoratec Corporation
096205- 0897466 (001800JP)	THOR- PO1007JP	JP	COMBINATION MEMBRANING TOOL, PACKAGE AND CALIBRATION UNIT FOR EYELID SENSOR OR THE LIKE	66207/82	4/20/82	Thoratec Corporation
096205- 0897457 (001800US)	THOR- PO1007	US	COMBINATION MEMBRANING TOOL, PACKAGE AND CALIBRATION UNIT FOR EYELID SENSOR OR THE LIKE	06/255,682 4,454,643	4/20/81 6/19/84	Thoratec Corporation
096205- 0897470 (001900GB)	THOR- PO1008GB	UK	BLOCK POLYMER OF POLYALKYLSILOXANE), HARD BLOCK POLYMER AND POLYETHYLENE OXIDE POLYMER	8407417 2140444	2/23/81 6/5/85	Thoratec Corporation
096205- 0897469 (002000GB)	THOR- PO1009GB	UK	FABRICATION OF TUBING	08/203811 2092944	2/10/82 2/10/82	Thoratec Corporation
096205- 0900475 (002100CA)	THOR- PO1010CA	CA	PRESSURE REGULATOR	450,186	3/22/84	Thoratec Corporation
096205- 0900533 (002100DE)	THOR- PO1010DE	DE	PRESSURE REGULATOR	P3411625.7	3/29/84	Thoratec Corporation
096205- 0900534	THOR- PO1010FR	FR	PRESSURE REGULATOR	846840	5/2/84	Thoratec Corporation

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096205-0900535 (002100GB)	THOR-PO1010GB	UK	PRESSURE REGULATOR	8410063	4/18/84	Thoratec Corporation
096205-0900536 (002100JP)	THOR-PO1010JP	JP	PRESSURE REGULATOR	88243/84	5/1/84	Thoratec Corporation
096205-0897468 (002100US)	THOR-PO1010	US	PRESSURE REGULATOR	06/490,674	5/3/83	Thoratec Corporation
096205-0900537 (002200US)	THOR-PO1011	US	SPLIT CARRIER FOR EYELID SENSOR AND THE LIKE	06/454,908 4,524,776	10/27/83 6/25/85	Thoratec Corporation
096205-0900538 (002300FR)	THOR-PO1012FR	FR	SAFETY CONTROL VALVE FOR AN ARTIFICIAL HEART	84/10333	6/29/84	Thoratec Corporation
096205-0900539 (002300GB)	THOR-PO1012GB	UK	SAFETY CONTROL VALVE FOR AN ARTIFICIAL HEART	8416666 2153016	6/29/84 4/29/87	Thoratec Corporation
096205-0900540 (002300JP)	THOR-PO1012JP	JP	SAFETY CONTROL VALVE FOR AN ARTIFICIAL HEART	135026/84	6/29/84	Thoratec Corporation
096205-0900541 (002400GB)	THOR-PO1013GB	UK	SEALING ARRANGEMENT FOR PISTON AND CYLINDER	8417257	7/6/84	Thoratec Corporation
096205-0900543 (002500FR)	THOR-PO1014FR	FR	DEVICE TO SEAL A PNEUMATIC OR HYDRAULIC PISTON	84/10826	7/6/84	Thoratec Corporation
096205-0900544 (002500JP)	THOR-PO1014JP	JP	DEVICE TO SEAL A PNEUMATIC OR HYDRAULIC PISTON	104431/84	7/6/84	Thoratec Corporation
096205-0900542 (002500US)	THOR-PO1014	US	DEVICE TO SEAL A PNEUMATIC OR HYDRAULIC PISTON	06/628,236	7/6/84	Thoratec Corporation
096205-0900545 (002600CA)	THOR-PO1015CA	CA	IMPROVED SPLIT CARRIER FOR EYELID SENSOR AND THE LIKE	466,377	10/26/84	Thoratec Corporation
096205-0900546 (002600DE)	THOR-PO1015DE	DE	IMPROVED SPLIT CARRIER FOR EYELID SENSOR AND THE LIKE	P3439357.9 3439357	10/26/84 4/16/87	Thoratec Corporation
096205-0900557 (002600GB)	THOR-PO1015GB	UK	IMPROVED SPLIT CARRIER FOR EYELID SENSOR AND THE LIKE	8426456 2148718	10/19/84 3/11/87	Thoratec Corporation
096205-0900556 (002600JP)	THOR-PO1015JP	JP	IMPROVED SPLIT CARRIER FOR EYELID SENSOR AND THE LIKE	59-226629 1449435	10/27/84 7/11/88	Thoratec Corporation
096205-0900554 (002700AT)	THOR-PO1016AT	AT	POLYSILOXANE-POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205-0900553 (002700BE)	THOR-PO1016BE	BE	POLYSILOXANE-POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205-0900551	THOR-PO1016CH	CH	POLYSILOXANE-POLYLACTONE BLOCK	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation

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(002700CH)			COPOLYMERS			
096205- 0900690 (002700DE)	THOR- P01016DE	DE	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900689 (002700EP)	THOR- P01016EP	EPO	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900688 (002700FR)	THOR- P01016FR	FR	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900688 (002700GB)	THOR- P01016GB	UK	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900692 (002700IT)	THOR- P01016IT	IT	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900693 (002700LU)	THOR- P01016LU	LU	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900694 (002700NL)	THOR- P01016NL	NL	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900474 (002700SE)	THOR- P01016SE	SE	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	86900643.7 208734	1/6/86 6/10/91	Thoratec Corporation
096205- 0900555 (002700US)	THOR- P01016	US	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	06/688,788 4,663,413	1/4/85 5/5/87	Thoratec Corporation
096205- 0900562 (002710US)	THOR- P01016C	US	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	07/290,822 4,963,595	12/22/88 10/16/90	Thoratec Corporation
096205- 0900550 (002720US)	THOR- P01016D	US	POLYSILOXANE- POLYLACTONE BLOCK COPOLYMERS	07/575,961 5,235,003	8/31/90 8/10/93	Thoratec Corporation
096205- 0900476 (002800EP)	THOR- P01017EP	EPO	METHOD FOR MAKING AN ARTICLE WITH SHAPE-MEMORY PROPERTIES AND SOME OF THE THUS OBTAINED ARTICLES	90123938.4 422693	1/8/85	Thoratec Corporation
096205- 0900507 (002900US)	THOR- P01018	US	POLYSILOXANE/POLY (OXAZOLINE) COPOLYMERS	06/802,753 4,659,777	11/27/85 4/21/87	Thoratec Corporation
096205- 0900504 (003000AU)	THOR- P01019AU1	AU	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	67551/81 548194	2/23/81 1/4/86	Thoratec Corporation
096205- 0900514 (003000CA)	THOR- P01019CA1	CA	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	371,214 1206668	2/18/81 6/24/86	Thoratec Corporation
096205- 0900520	THOR- P01019DE1	DE	POLYMER SURFACES FOR BLOOD-CONTACTING	P3153664.6 3153664	2/27/81 10/25/86	Thoratec Corporation

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(003000DE)			SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING			
096205-0900522 (003000FR)	THOR- P01019FR1	FR	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	81/03961 2491838	2/25/81 12/27/90	Thoratec Corporation
096205-0900524 (003000JP)	THOR- P01019JP	JP	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	26707/81 1595458	2/25/81 12/27/90	Thoratec Corporation
096205-0900506 (003000US)	THOR- P01019	US	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	08/125,845	2/23/80	Thoratec Corporation
096205-0900499 (003010AU)	THOR- P01019AU2	AU	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	47454/85	9/13/85	Thoratec Corporation
096205-0900518 (003010CA)	THOR- P01019CA2	CA	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	473726 1211878	2/7/85 9/23/86	Thoratec Corporation
096205-0900521 (003010DE)	THOR- P01019DE2	DE	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	P3107542.8 3107542	2/27/81 3/7/96	Thoratec Corporation
096205-0900523 (003010FR)	THOR- P01019FR2	FR	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	82/10981 2487217	2/27/81 5/23/86	Thoratec Corporation
096205-0900512 (003010US)	THOR- P01019C1	US	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	06/278,664	6/29/81	Thoratec Corporation
096205-0900513 (003011US)	THOR- P01019C2	US	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	06/385,813	6/7/82	Thoratec Corporation

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096205-0900526 (003012US)	THOR- P01019X1	US	POLYMER SURFACES FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE, AND METHODS FOR FORMING	06/472,189	3/4/83	Thoratec Corporation
096205-0900527 (003013US)	THOR- P01019X2	US	POLYMER SYSTEMS SUITABLE FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE AND METHODS FOR FORMING	06/507,517 4,675,361	6/24/83 6/23/87	Thoratec Corporation
096205-0900502 (003014US)	THOR- P01019C	US	POLYMER SYSTEMS SUITABLE FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE AND METHODS FOR FORMING	07/065,418 4,861,830	6/22/87 8/29/87	Thoratec Corporation
096205-0900519 (003020CA)	THOR- P01019CA3	CA	POLYMER SYSTEMS SUITABLE FOR BLOOD-CONTACTING SURFACES OF A BIOMEDICAL DEVICE AND METHODS FOR FORMING	473,993 1,261,987	2/11/85 9/26/89	Thoratec Corporation
096205-0900649 (003100AT)	THOR- P01020AT	AT	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900650 (003100BE)	THOR- P01020BE	BE	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900615 (003100CA)	THOR- P01020CA	CA	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	538,942 1,337,908	1/5/87 1/9/96	Thoratec Corporation
096205-0900652 (003100CH)	THOR- P01020CH	CH	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900653 (003100DE)	THOR- P01020DE	DE	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900655 (003100EP)	THOR- P01020EP	EP	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900660 (003100ES)	THOR- P01020ES	ES	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900658 (003100FR)	THOR- P01020FR	FR	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900659	THOR- P01020GB	GB	HYDROXYL-FUNCTIONAL DISILOXANES AND	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation

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(003100GB)			POLYSILOXANE OLIGOMERS			
096205-0900662 (003100GR)	THOR-PO1020GR	GR	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900683 (003100IT)	THOR-PO1020IT	IT	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900684 (003100LU)	THOR-PO1020LU	LU	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900685 (003100NL)	THOR-PO1020NL	NL	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900686 (003100SE)	THOR-PO1020SE	SE	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	87305103.1 294525	6/9/87 2/17/93	Thoratec Corporation
096205-0900529 (003100US)	THOR-PO1020	US	HYDROXYL-FUNCTIONAL DISILOXANES AND POLYSILOXANE OLIGOMERS	06/840,843 4,689,383	3/18/86 8/25/87	Thoratec Corporation
096205-0900713 (003300CA)	THOR-PO1022CA	CA	MOISTURE VAPOR PERMEABLE MATERIALS	4781,762 1,257,425	5/17/85 7/11/89	Thoratec Corporation
096205-0900719 (003300CH)	THOR-PO1022CH	CH	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900717 (003300DE)	THOR-PO1022DE	DE	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900718 (003300EP)	THOR-PO1022EP	EPO	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900723 (003300FR)	THOR-PO1022FR	FR	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900721 (003300GB)	THOR-PO1022GB	GB	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900722 (003300IT)	THOR-PO1022IT	IT	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK	85902854 183790	5/21/85 9/11/91	Thoratec Corporation

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096205-0900729 (003300JP)	THOR- P01022JP	JP	MULTIPOLYMER MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	60-52262 1801722 183790	5/21/85 11/12/93	Thoratec Corporation
096205-0900728 (003300LU)	THOR- P01022LU	LU	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900727 (003300NL)	THOR- P01022NL	NL	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900726 (003300SE)	THOR- P01022SE	SE	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	85902854 183790	5/21/85 9/11/91	Thoratec Corporation
096205-0900712 (003310US)	THOR- P01022C1	US	MOISTURE VAPOR PERMEABLE MATERIALS CONTAINING SEGMENTED BLOCK MULTIPOLYMER	07/040,557 4,686,137	4/17/87 8/11/87	Thoratec Laboratories Corp.
096205-0900699 (003400CA)	THOR- P01023CA	CA	MAGNETICALLY SUSPENDED ROTOR AXIAL FLOW BLOOD PUMP	563,754 1323467	4/11/88 10/26/93	Thoratec Corporation
096205-0900697 (003400US)	THOR- P01023	US	MAGNETICALLY SUSPENDED ROTOR AXIAL FLOW BLOOD PUMP	07/036,304 4,779,614	4/5/87 10/25/88	Thoratec Corporation
096205-0900707 (003500AU)	THOR- P01024AU	AU	METHOD FOR MODIFYING POLYMER SURFACES WITH SURFACE-ACTIVE POLYMER BLOCKS TETHERED TO NON- SURFACE-ACTIVE COMPONENTS	73870/87	6/5/87	Thoratec Corporation
096205-0900704 (003500CA)	THOR- P01024CA	CA	METHOD FOR MODIFYING POLYMER SURFACES WITH SURFACE-ACTIVE POLYMER BLOCKS TETHERED TO NON- SURFACE-ACTIVE COMPONENTS	538,945	6/5/87	Thoratec Corporation
096205-0900702 (003500EP)	THOR- P01024EP	EPO	METHOD FOR MODIFYING POLYMER SURFACES WITH SURFACE-ACTIVE POLYMER BLOCKS TETHERED TO NON- SURFACE-ACTIVE COMPONENTS	87305012.4	6/5/87	Thoratec Corporation

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096205-0900706 (003500JP)	THOR- P01024JP	JP	METHOD FOR MODIFYING POLYMER SURFACES WITH SURFACE-ACTIVE POLYMER BLOCKS TETHERED TO NON-SURFACE-ACTIVE COMPONENTS	141291/87	6/5/87	Thoratec Corporation
096205-0900705 (003500US)	THOR- P01024C	US	METHOD FOR MODIFYING POLYMER SURFACES WITH SURFACE-ACTIVE POLYMER BLOCKS TETHERED TO NON-SURFACE-ACTIVE COMPONENTS	07/357,672	5/25/89	Thoratec Corporation
096205-0900710 (003600US)	THOR- P01026	US	CHRONIC VENTRICULAR ASSIST SYSTEM	07/229,624 4,908,012	8/8/88 3/13/90	Thoratec Corporation
096205-0900709 (003700US)	THOR- P01027	US	BRAILLE MOUSE	07/701,458 5,195,894	5/15/91 3/23/93	Thoratec Corporation
096205-0900778 (003800CA)	THOR- P01030CA1	CA	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	2,197,000 2,197,000	5/22/96 10/21/03	Thoratec Corporation
096205-0900800 (003800DE)	THOR- P01030DE	DE	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	96914755.2 69612267.7	5/22/96 3/28/01	Thoratec Corporation
096205-0900800 (003800EP)	THOR- P01030EP1	EPO	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	96914755.2	2/1/97	Thoratec Corporation
096205-0900796 (003800ES)	THOR- P01030ES	ES	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	96914755.2 779815	5/22/96 3/28/01	Thoratec Corporation
096205-09007967 (003800FR)	THOR- P01030FR	FR	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	96914755.2 779815	5/22/96 3/28/01	Thoratec Corporation
096205-0900799 (003800GB)	THOR- P01030GB	UK	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	96914755.2 779815	5/22/96 3/28/01	Thoratec Corporation
096205-0900798 (003800IT)	THOR- P01030IT	IT	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	96914755.2 779815	5/22/96 3/28/01	Thoratec Corporation
096205-0900802 (003800JP)	THOR- P01030JP	JP	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	9-500687	5/22/96	Thoratec Corporation
096205-0900801 (003800PC)	THOR- P01030WO	PCT	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	PCT/US96/007500	5/22/96	Thoratec Corporation

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096205-0900781 (003800US)	THOR-PO1030	US	SURFACE-MODIFYING COPOLYMERS HAVING CELL ADHESION PROPERTIES	08/467,604 5,733,538	6/7/95 3/31/98	Thoratec Corporation
096205-0900810 (003900AT)	THOR-PO1032AT	AT	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412 877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900815 (003900AU)	THOR-PO1032AU	AU	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	49631/97 713592	10/31/97 3/23/00	Thoratec Corporation
1096205-0900839 (003900BE)	THOR-PO1032BE	BE	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412 877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900842 (003900CA)	THOR-PO1032CA	CA	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	2,241,888 2241888	10/31/97 9/11/01	Thoratec Corporation
096205-0900838 (003900CH)	THOR-PO1032CH	CH	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900842 (003900DE)	THOR-PO1032DE	DE	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900843 (003900DK)	THOR-PO1032DK	DK	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900844 (003900EP)	THOR-PO1032EP	EP	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900845 (003900ES)	THOR-PO1032ES	ES	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900846 (003900FI)	THOR-PO1032FI	FI	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900848 (003900FR)	THOR-PO1032FR	FR	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900847 (003900GB)	THOR-PO1032GB	GB	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900849 (003900GR)	THOR-PO1032GR	GR	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900850 (003900IE)	THOR-PO1032IE	IE	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900851 (003900IT)	THOR-PO1032IT	IT	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900852 (003900JP)	THOR-PO1032JP	JP	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900853 (003900NL)	THOR-PO1032NL	NL	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900856	THOR-PO1032PT	PT	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation

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(003900PT)			PUMPS			
096205-0900857 (003900SE)	THOR-P01032SE	SE	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	97912412.0 0877633	10/31/97 07/20/05	Thoratec Corporation
096205-0900809 (003900US)	THOR-P01032	US	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	08/740,749 5,888,242	11/01/96 03/30/99	Thoratec Corporation
096205-0900858 (003910US)	THOR-P01032X	US	SPEED CONTROL SYSTEM FOR IMPLANTED BLOOD PUMPS	09/034,674 6,066,086	03/04/98 05/23/00	Thoratec Corporation
096205-0900918 (004100PC)	THOR-P01034WO	PCT	SEALED MOTOR STATOR ASSEMBLY FOR IMPLANTABLE BLOOD PUMP	PCT/U599/006122	3/26/99	Thoratec Corporation
096205-0900919 (004100US)	THOR-P01034	US	SEALED MOTOR STATOR ASSEMBLY FOR IMPLANTABLE BLOOD PUMP	09/050,782	3/30/98	Thoratec Corporation
096205-0900923 (004200PC)	THOR-P01035	US	MOTOR ROTOR BEARING ASSEMBLY FOR A BLOOD PUMP	09/237,721 6,186,665	01/26/99 02/13/01	Thoratec Corporation
096205-0900920 (004200US)	THOR-P01035WO	PCT	MOTOR ROTOR BEARING ASSEMBLY FOR A BLOOD PUMP	PCT/U500/001658	1/24/00	Thoratec Corporation
096205-0900920 (004300PC)	THOR-P01036WO	PCT	BLOOD PUMP WITH PROFILED OUTFLOW REGION	PCT/U500/001660	1/24/00	Thoratec Corporation
096205-0900935 (004300US)	THOR-P01036	US	BLOOD PUMP WITH PROFILED OUTFLOW REGION	09/237,724 6,123,659	1/26/99 9/26/00	Thoratec Corporation
096205-0900938 (004400CA)	THOR-P01037CA	CA	ARTICULATED MOTOR STATOR ASSEMBLY FOR A PUMP	2,361,347	1/24/00	Thoratec Corporation
096205-0900939 (004400EP)	THOR-P01037EP	EPD	ARTICULATED MOTOR STATOR ASSEMBLY FOR A PUMP	0968365.0 2,361,347	1/24/00	Thoratec Corporation
096205-0900941 (004400JP)	THOR-P01037JP	JP	ARTICULATED MOTOR STATOR ASSEMBLY FOR A PUMP	2000-595061	1/24/00	Thoratec Corporation
096205-0900937 (004400US)	THOR-P01037	US	ARTICULATED MOTOR STATOR ASSEMBLY FOR A PUMP	09/237,731 6,018,208	1/26/99 1/25/00	Thoratec Corporation
096205-0900942 (004500US)	THOR-P01038	US	INLINE CABLE CONNECTOR	09/250,130 6,305,962	02/16/99 10/23/01	Thoratec Corporation
096205-0900951 (004800DE)	THOR-P01041DE	DE	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	01935288.9 60143519.2	05/10/01 11/24/10	Thoratec Corporation
096205-0900950 (004800EP)	THOR-P01041EP	EP	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	01935288.9 1280581	05/10/01 11/24/10	Thoratec Corporation
096205-0900952 (004800FR)	THOR-P01041FR	FR	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	01935288.9 1280581	05/10/01 11/24/10	Thoratec Corporation

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096205-0900953 (004800GB)	THOR- P01041GB	GB	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	01935288.9 1280581	05/10/01 11/24/10	Thoratec Corporation
096205-0900954 (004800IT)	THOR- P01041IT	IT	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	01935288.9 1280581	05/10/01 11/24/10	Thoratec Corporation
096205-0900949 (004800PC)	THOR- P01041WQ	PCT	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	PCT/US2001/015152	05/10/01	Thoratec Corporation
096205-0900945 (004800US)	THOR- P01041	US	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	09/567,942 6,327,504	05/10/00 12/04/01	Thoratec Corporation
096205-0900946 (004810US)	THOR- P01041C	US	TRANSCUTANEOUS ENERGY TRANSFER WITH CIRCUITRY ARRANGED TO AVOID OVERHEATING	10/004,731	12/4/01	Thoratec Corporation
096205-0900957 (004900DE)	THOR- P01047DE	DE	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	03008903.1 60306012.8	04/16/03 06/14/06	Thoratec Corporation
096205-0900956 (004900EP)	THOR- P01047EP	EP	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	03008903.1 1354606	04/16/03 06/14/06	Thoratec Corporation
096205-0900958 (004900ES)	THOR- P01047ES	ES	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	03008903.1 1354606	04/16/03 06/14/06	Thoratec Corporation
096205-0900959 (004900FR)	THOR- P01047FR	FR	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	03008903.1 1354606	04/16/03 06/14/06	Thoratec Corporation
096205-0900960 (004900GB)	THOR- P01047GB	GB	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	03008903.1 1354606	04/16/03 06/14/06	Thoratec Corporation
096205-0900961 (004900IT)	THOR- P01047IT	IT	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	03008903.1 1354606	04/16/03 06/14/06	Thoratec Corporation
096205-0900955 (004900US)	THOR- P01047	US	ADAPTIVE SPEED CONTROL FOR BLOOD PUMP	10/125,943 6,991,595	04/19/02 01/31/06	Thoratec Corporation
096205-0898545 (005000US)	THOR- P01048A	US	UNIVERSAL PUMP CONNECTOR	60/396,630	7/19/02	Thoratec Corporation
096205-0898547 (005100AU)	THOR- P01049AU	AU	TRANSMISSION OF INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	2003265530 2003265530	08/19/03 02/29/08	Thoratec Corporation
096205-0898548 (005100CA)	THOR- P01049CA1	CA	TRANSMISSION OF INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	2,495,819 2,495,819	08/19/03 08/13/13	Thoratec Corporation
096205-0898018 (005100EP)	THOR- P01049EP	EP	TRANSMISSION OF INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	037931176.3	08/19/03	Thoratec Corporation
096205-	THOR-	JP	TRANSMISSION OF	2004-531136	08/19/03	Thoratec Corporation

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0898550 (005100JP)	PO1049JP		INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	4689270	02/25/11	
096205- 0898551 (005100PC)	THOR- PO1049WO	PCT	TRANSMISSION OF INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	PCT/US2003/026086	8/19/03	Thoratec Corporation
096205- 0898546 (005100US)	THOR- PO1049	US	TRANSMISSION OF INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	10/224,118 6,772,011	08/20/02 08/03/04	Thoratec Corporation
096205- 0898549 (005110CA)	THOR- PO1049CA2	CA	TRANSMISSION OF INFORMATION FROM AN IMPLANTED MEDICAL DEVICE	2,817,934	08/19/03	Thoratec Corporation
096205- 0897412 (005200CA)	THOR- PO1052CA	CA	HEART PUMP CONNECTOR	2,574,840	7/12/05	Thoratec Corporation
096205- 0897411 (005200EP)	THOR- PO1052EP	EP	HEART PUMP CONNECTOR	05771142.6	7/12/05	Thoratec Corporation
096205- 0897415 (005200PC)	THOR- PO1052WO	PCT	HEART PUMP CONNECTOR	PCT/US2005/024751	07/12/05	Thoratec Corporation
096205- 0897408 (005200US)	THOR- PO1052	US	HEART PUMP CONNECTOR	10/897,311 7,824,358	07/22/04 11/02/10	Thoratec Corporation
096205- 0898553 (005300AU)	THOR- PO1055AU	AU	PREVENTION OF AORTIC VALVE FUSION	2010217864 2010217864	02/26/10 10/03/13	Thoratec Corporation
096205- 0898022 (005300CA)	THOR- PO1055CA	CA	PREVENTION OF AORTIC VALVE FUSION	2,753,728	2/26/10	Thoratec Corporation
096205- 0898554 (005300CN)	THOR- PO1055CN	CN	PREVENTION OF AORTIC VALVE FUSION	201080015093.5	2/26/10	Thoratec Corporation
096205- 0903065 (005300DE)	THOR- PO1055DE	DE	PREVENTION OF AORTIC VALVE FUSION	10706119.4 2401002	02/26/10 04/09/14	Thoratec Corporation
096205- 0898005 (005300EP)	THOR- PO1055EP	EP	PREVENTION OF AORTIC VALVE FUSION	10706119.4 2401002	02/26/10 04/09/14	Thoratec Corporation
096205- 0903066 (005300FR)	THOR- PO1055FR	FR	PREVENTION OF AORTIC VALVE FUSION	10706119.4 2401002	02/26/10 04/09/14	Thoratec Corporation
096205- 0903067 (005300GB)	THOR- PO1055GB	GB	PREVENTION OF AORTIC VALVE FUSION	10706119.4 2401002	02/26/10 04/09/14	Thoratec Corporation
096205- 0898555 (005300HK)	THOR- PO1055HK	HK	PREVENTION OF AORTIC VALVE FUSION	12105727.5	2/26/10	Thoratec Corporation
096205- 0898568 (005300IN)	THOR- PO1055IN	IN	PREVENTION OF AORTIC VALVE FUSION	6836/DELNPO/2011	2/26/10	Thoratec Corporation
096205- 0898569 (005300JP)	THOR- PO1055JP	JP	PREVENTION OF AORTIC VALVE FUSION	2011-552184	2/26/10	Thoratec Corporation

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096205-0898552 (005300PC)	THOR-P01055WO	PCT	PREVENTION OF AORTIC VALVE FUSION	PCT/US2010/025539	2/26/10	Thoratec Corporation
096205-0898017 (005300US)	THOR-P01055	US	PREVENTION OF AORTIC VALVE FUSION	12/394,185 8,562,507	02/27/09 10/22/13	Thoratec Corporation
096205-0898021 (005310US)	THOR-P01055C	US	PREVENTION OF AORTIC VALVE FUSION	14/022,312	09/10/13	Thoratec Corporation
096205-0898571 (005400PC)	THOR-P01056WO	PCT	MAXIMIZING BLOOD PUMP FLOW WHILE AVOIDING LEFT VENTRICLE COLLAPSE	PCT/US2010/025358	2/25/10	Thoratec Corporation
096205-0898570 (005400US)	THOR-P01056	US	MAXIMIZING BLOOD PUMP FLOW WHILE AVOIDING LEFT VENTRICLE COLLAPSE	12/394,264	2/27/09	Thoratec Corporation
096205-0898536 (005500AU)	THOR-P01057AU	AU	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	2010217856	02/26/10	Thoratec Corporation
096205-0898572 (005500CA)	THOR-P01057CA	CA	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	2,753,966	02/26/10	Thoratec Corporation
096205-0898573 (005500CN)	THOR-P01057CN	CN	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	201080015018.9	02/26/10	Thoratec Corporation
096205-0898578 (005500DE)	THOR-P01057DE	DE	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	10707734.9 602010011319.1	02/26/10 10/30/13	Thoratec Corporation
096205-0898004 (005500EP)	THOR-P01057EP1	EP	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	10707734.9 2401003	02/26/10 10/30/13	Thoratec Corporation
096205-0898534 (005510EP)	THOR-P01057EP2	EP	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	12177683.7	2/26/10	Thoratec Corporation
096205-0898579 (005500FR)	THOR-P01057FR	FR	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	10707734.9 2401003	02/26/10 10/30/13	Thoratec Corporation
096205-0898537 (005500GB)	THOR-P01057GB	GB	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	10707734.9 2401003	02/26/10 10/30/13	Thoratec Corporation
096205-0898574 (005500HK)	THOR-P01057HK	HK	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	12105728.4	2/26/10	Thoratec Corporation
096205-0898535 (005500IE)	THOR-P01057IE	IE	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	10707734.9 2401003	02/26/10 10/30/13	Thoratec Corporation
096205-0898575 (005500IN)	THOR-P01057IN	IN	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	6833/DELNP/2011	02/26/10	Thoratec Corporation
096205-0898576 (005500JP)	THOR-P01057JP	JP	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	2011-552182	02/26/10	Thoratec Corporation
096205-0898577 (005500PC)	THOR-P01057WO	PCT	BLOOD PUMP SYSTEM WITH CONTROLLED WEANING	PCT/US10/025531	02/26/10	Thoratec Corporation
096205-	THOR-	US	BLOOD PUMP SYSTEM	12/394,205	2/27/09	Thoratec Corporation

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0900963 (005510US)	PO1057		WITH CONTROLLED WEANING			
096205- 0898650 (005600PC)	THOR- PO1058WO	PCT	BLOOD PUMP SYSTEM WITH ARTERIAL PRESSURE MONITORING	PCT/US10/025363	02/25/10	Thoratec Corporation
096205- 0898651 (005600US)	THOR- PO1058	US	BLOOD PUMP SYSTEM WITH ARTERIAL PRESSURE MONITORING	12/394,317	2/27/09	Thoratec Corporation
096205- 0897110 (005700AU)	THOR- PO1063AU	AU	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	2009357586 2009357586	10/30/09 10/3/13	Thoratec Corporation
096205- 0897121 (005700CA)	THOR- PO1063CA	CA	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	2,785,784	12/30/09	Thoratec Corporation
096205- 0940093 (005700DE)	THOR- PO1063DE	DE	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	09796283.1 DE 60 2009 032 705.4	12/30/09 08/05/15	Thoratec Corporation
096205- 0897124 (005700EP)	THOR- PO1063EP	EP	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	09796283.1 2519273	12/30/09 08/05/15	Thoratec Corporation
096205- 0940091 (005700FR)	THOR- PO1063FR	FR	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	09796283.1 2519273	12/30/09 08/05/15	Thoratec Corporation
096205- 0940092 (005700GB)	THOR- PO1063GB	GB	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	09796283.1 2519273	12/30/09 08/05/15	Thoratec Corporation
096205- 0897126 (005700PC)	THOR- PO1063WO	PCT	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	PCT/US2009/069836	12/30/09	Thoratec Corporation
096205- 0897107 (005700US)	THOR- PO1063	US	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	12/650,017 8,152,845	12/30/09 04/10/12	Thoratec Corporation
096205- 0897111 (005710AU)	THOR- PO1063AU2	AU	BLOOD PUMP SYSTEM WITH MOUNTING CUFF	2013231115 2013231115	12/30/09 01/22/15	Thoratec Corporation
096205- 0897123 (005710US)	THOR- PO1063D	US	METHOD OF IMPLANTING A BLOOD PUMP SYSTEM	13/414,041 8,679,177	03/07/12 03/25/14	Thoratec Corporation
096205- 0897146 (005800US)	THOR- PO1070A	US	IMPLANTABLE BLOOD PUMP	61/375,504	8/20/10	Thoratec Corporation
096205- 0897153 (005810AU)	THOR- PO1070AU	AU	IMPLANTABLE BLOOD PUMP	2011291984 2011291984	08/18/11 12/11/14	Thoratec Corporation
096205- 0897154 (005810CA)	THOR- PO1070CA	CA	IMPLANTABLE BLOOD PUMP	2,808,658	08/18/11	Thoratec Corporation
096205- 0897157 (005810EP)	THOR- PO1070EP	EP	IMPLANTABLE BLOOD PUMP	11750037.1	08/18/11	Thoratec Corporation
096205- 0897158 (005810JP)	THOR- PO1070JP	JP	IMPLANTABLE BLOOD PUMP	2013-524979 5977237	08/18/11 07/29/16	Thoratec Corporation
096205- 0897163 (005810PC)	THOR- PO1070WO	PCT	IMPLANTABLE BLOOD PUMP	PCT/US2011/048259	08/18/11	Thoratec Corporation
096205-	THOR-	TW	IMPLANTABLE BLOOD	100129901	08/19/11	Thoratec Corporation

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0897159 (005810TW)	PO1070TW		PUMP			
096205- 0897144 (005810US)	THOR- PO1070	US	IMPLANTABLE BLOOD PUMP	13/212,813 9,091,271	06/18/11 07/28/15	Thoratec Corporation
096205- 0941116 (005811US)	THOR- PO1070C	US	IMPLANTABLE BLOOD PUMP	14/735,990	06/10/15	Thoratec Corporation
096205- 0897189 (005900US)	THOR- PO1074A	US	GENERATING ARTIFICIAL PULSE	61/386,018	9/24/10	Thoratec Corporation
096205- 0897184 (005910AU)	THOR- PO1074AU	AU	GENERATING ARTIFICIAL PULSE	2011305250 2011305250	09/23/11 01/15/15	Thoratec Corporation
096205- 0897230 (005910CA)	THOR- PO1074CA	CA	GENERATING ARTIFICIAL PULSE	2,811,606	09/23/11	Thoratec Corporation
096205- 0897235 (005910EP)	THOR- PO1074EP1	EP	GENERATING ARTIFICIAL PULSE	11769980.1 2618863	09/23/11 11/09/16	Thoratec Corporation
096205- 0897234 (005910JP)	THOR- PO1074JP1	JP	GENERATING ARTIFICIAL PULSE	2013-530346 5818897	09/23/11 10/09/15	Thoratec Corporation
096205- 0897240 (005910PC)	THOR- PO1074WO	PCT	GENERATING ARTIFICIAL PULSE	PCT/US2011/052912	09/23/11	Thoratec Corporation
096205- 0897232 (005910TW)	THOR- PO1074TW	TW	GENERATING ARTIFICIAL PULSE	100134486	09/23/11	Thoratec Corporation
096205- 0897188 (005910US)	THOR- PO1074	US	GENERATING ARTIFICIAL PULSE	13/241,831 8,506,471	09/23/11 08/13/13	Thoratec Corporation
096205- 0966747 (005911EP)	THOR- PO1074EP2	EP	GENERATING ARTIFICIAL PULSE	15202427.9	09/23/11	Thoratec Corporation
096205- 0958148 (005911JP)	THOR- PO1074JP2	JP	GENERATING ARTIFICIAL PULSE	2015-191126	09/23/11	Thoratec Corporation
096205- 0897190 (005911US)	THOR- PO1074D	US	GENERATING ARTIFICIAL PULSE	13/926,044 9,011,312	06/25/13 04/21/15	Thoratec Corporation
096205- 1019045 (005912EP)	THOR- PO1074EP3	EP	GENERATING ARTIFICIAL PULSE	16186781.7	09/23/11	Thoratec Corporation
096205- 0906172 (005912US)	THOR- PO1074C	US	GENERATING ARTIFICIAL PULSE	14/261,817 8,961,368	04/25/14 02/24/15	Thoratec Corporation
096205- 0928147 (005913US)	THOR- PO1074C2	US	GENERATING ARTIFICIAL PULSE	14/592,630 9,433,717	01/08/15 09/06/16	Thoratec Corporation
096205- 1003736 (005914US)	THOR- PO1074C3	US	GENERATING ARTIFICIAL PULSE	15/221,456	07/27/16	Thoratec Corporation
096205- 0897309 (006000US)	THOR- PO1076A	US	MODULAR DRIVELINE	61/420,908	12/8/10	Thoratec Corporation
096205-	THOR-	AU	MODULAR DRIVELINE	2011338380	12/9/11	Thoratec Corporation

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0897307 (006010AU)	PO1076AU					
096205- 0897306 (006010CA)	THOR- PO1076CA	CA	MODULAR DRIVELINE	2,820,886	12/8/11	Thoratec Corporation
096205- 0897305 (006010EP)	THOR- PO1076EP	EP	MODULAR DRIVELINE	11802998.2	12/08/11	Thoratec Corporation
096205- 0897310 (006010PC)	THOR- PO1076WQ	PCT	MODULAR DRIVELINE	PCT/US2011/063932	12/8/11	Thoratec Corporation
096205- 0897308 (006010US)	THOR- PO1076	US	MODULAR DRIVELINE	13/314,806 8,794,989	12/08/11 08/05/14	Thoratec Corporation
096205- 0911015 (006011US)	THOR- PO1076C1	US	MODULAR DRIVELINE	14/316,277 9,452,249	06/26/14 09/27/16	Thoratec Corporation
096205- 0897269 (0061000US)	THOR- PO1079A	US	VENTRICULAR CUFF	61/448,434	3/2/11	Thoratec Corporation
096205- 0897271 (006110AU)	THOR- PO1079AU	AU	VENTRICULAR CUFF	2012223166	03/02/12	Thoratec Corporation
096205- 0897272 (006110CA)	THOR- PO1079CA	CA	VENTRICULAR CUFF	2,828,885	03/02/12	Thoratec Corporation
096205- 0897274 (006110DE)	THOR- PO1079DE1	DE	VENTRICULAR CUFF	127100121 60 2012 013 873.4	03/02/12 01/13/16	Thoratec Corporation
096205- 0897274 (006110EP)	THOR- PO1079EP1	EP	VENTRICULAR CUFF	127100121 2680896	03/02/12 01/13/16	Thoratec Corporation
096205- 0897274 (006110FR)	THOR- PO1079FR1	FR	VENTRICULAR CUFF	127100121 2680896	03/02/12 01/13/16	Thoratec Corporation
096205- 0897274 (006110GB)	THOR- PO1079GB1	GB	VENTRICULAR CUFF	127100121 2680896	03/02/12 01/13/16	Thoratec Corporation
096205- 0897275 (006110JP)	THOR- PO1079JP	JP	VENTRICULAR CUFF	2013-556900	03/02/12	Thoratec Corporation
096205- 0897276 (006110PC)	THOR- PO1079WQ	PCT	VENTRICULAR CUFF	PCT/US2012/027481	03/02/12	Thoratec Corporation
096205- 0897270 (006110US)	THOR- PO1079	US	VENTRICULAR CUFF	13/410,670 9,144,637	03/02/12 09/29/15	Thoratec Corporation
096205- 0958420 (006111EP)	THOR- PO1079EP2	EP	VENTRICULAR CUFF	15190712.8	03/02/12	Thoratec Corporation
096205- 0952027 (006111US)	THOR- PO1079D	US	VENTRICULAR CUFF	14/817,819	08/04/15	Thoratec Corporation
096205- 0897359 (006200US)	THOR- PO1082A	US	CONTROL OF CIRCULATORY ASSIST SYSTEMS	61/472,241	4/6/11	Thoratec Corporation
096205-	THOR-	AU	CONTROL OF	2011305243	09/23/11	Thoratec Corporation

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0897361 (006210AU)	PO1082AU		CIRCULATORY ASSIST SYSTEMS			
096205- 0897363 (006210CA)	THOR- PO1082CA	CA	CONTROL OF CIRCULATORY ASSIST SYSTEMS	2,811,604	09/23/11	Thoratec Corporation
096205- 1006502 (006210DE)	THOR- PO1082DE	DE	CONTROL OF CIRCULATORY ASSIST SYSTEMS	11768210.4 60 2011 028 596.3	09/23/11 07/27/16	Thoratec Corporation
096205- 0897370 (006210EP)	THOR- PO1082EP	EPO	CONTROL OF CIRCULATORY ASSIST SYSTEMS	11768210.4 2618862	09/23/11 07/27/16	Thoratec Corporation
096205- 1006504 (006210FR)	THOR- PO1082FR	FR	CONTROL OF CIRCULATORY ASSIST SYSTEMS	11768210.4 2618862	09/23/11 07/27/16	Thoratec Corporation
096205- 1006503 (006210GB)	THOR- PO1082GB	GB	CONTROL OF CIRCULATORY ASSIST SYSTEMS	11768210.4 2618862	09/23/11 07/27/16	Thoratec Corporation
096205- 0897364 (006210JP)	THOR- PO1082JP1	JP	CONTROL OF CIRCULATORY ASSIST SYSTEMS	2013-530341 5852122	09/23/11 12/11/15	Thoratec Corporation
096205- 0897372 (006210PC)	THOR- PO1082WO	PCT	CONTROL OF CIRCULATORY ASSIST SYSTEMS	PCT/US2011/052897	09/23/11	Thoratec Corporation
096205- 0897371 (006210TW)	THOR- PO1082TW	TW	CONTROL OF CIRCULATORY ASSIST SYSTEMS	100134484	09/23/11	Thoratec Corporation
096205- 0897360 (006210US)	THOR- PO1082	US	CONTROL OF CIRCULATORY ASSIST SYSTEMS	13/242,248	09/23/11	Thoratec Corporation
096205- 0898465 (006300US)	THOR- PO1085A	US	MODULAR IMPLANTABLE MEDICAL PUMP	61/606,767	3/5/12	Thoratec Corporation
096205- 1023493 (006310DE)	THOR- PO1085DE	DE	MODULAR IMPLANTABLE MEDICAL PUMP	13758005.6	03/05/13	Thoratec Corporation
096205- 0916887 (006310EP)	THOR- PO1085EP	EP	MODULAR IMPLANTABLE MEDICAL PUMP	13758005.6	03/05/13	Thoratec Corporation
096205- 1023495 (006310FR)	THOR- PO1085FR	FR	MODULAR IMPLANTABLE MEDICAL PUMP	13758005.6	03/05/13	Thoratec Corporation
096205- 1023494 (006310GB)	THOR- PO1085GB	UK	MODULAR IMPLANTABLE MEDICAL PUMP	13758005.6	03/05/13	Thoratec Corporation
096205- 0916888 (006310JP)	THOR- PO1085JP	JP	MODULAR IMPLANTABLE MEDICAL PUMP	2014-561058	03/05/13	Thoratec Corporation
096205- 0898023 (006310PC)	THOR- PO1085WO	PCT	MODULAR IMPLANTABLE MEDICAL PUMP	PCT/US2013/029209	03/05/13	Thoratec Corporation
096205- 0898024 (006310US)	THOR- PO1085	US	MODULAR IMPLANTABLE MEDICAL PUMP	13/786,336 8,894,561	03/05/13 11/25/14	Thoratec Corporation
096205- 0914916 (006320US)	THOR- PO1085D	US	MODULAR IMPLANTABLE MEDICAL PUMP	14/536,358 9,186,447	11/07/14 11/17/15	Thoratec Corporation
096205-	THOR-	US	MODULAR	14/885,947	10/16/15	Thoratec Corporation

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0957349 (006330US)	PO1085DC		IMPLANTABLE MEDICAL PUMP	9,387,285	07/12/16	
096205- 0898464 (006400US)	THOR- PO1086A	US	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	61/547,032	10/13/11	Thoratec Corporation
096205- 0903415 (006410DE)	THOR- PO1086DE	DE	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	11 2012 004 282.4	10/12/12	Thoratec Corporation
096205- 0898463 (006410PC)	THOR- PO1086WO	PCT	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	PCT/US2012/060071	10/12/12	Thoratec Corporation
096205- 0898013 (006410US)	THOR-PO108 6	US	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	13/630,874 8,854,643	10/12/12 10/21/14	Thoratec Corporation
096205- 0913333 (006411US)	THOR- PO1086C	US	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	14/489,041	09/17/14	Thoratec Corporation
096205- 0897417 (006500US)	THOR- PO1089A	US	DRIVELINE CABLE ASSEMBLY	61/589,929	1/24/12	Thoratec Corporation
096205- 0913309 (006510EP)	THOR- PO1089EP	EP	DRIVELINE CABLE ASSEMBLY	13741521.2	01/23/13	Thoratec Corporation
096205- 0897416 (006510PC)	THOR- PO1089WO	PCT	DRIVELINE CABLE ASSEMBLY	PCT/US2013/022698	01/23/13	Thoratec Corporation
096205- 0897418 (006510US)	THOR- PO1089	US	DRIVELINE CABLE ASSEMBLY	13/747,741 8,682,431	01/23/13 03/25/14	Thoratec Corporation
096205- 0898544 (006511US)	THOR- PO1089C	US	DRIVELINE CABLE ASSEMBLY	14/171,948 8,939,883	02/04/14 01/27/15	Thoratec Corporation
096205- 0898461 (006600US)	THOR- PO1112A	US	VENTRICULAR CUFF	61/695,925	8/31/12	Thoratec Corporation
096205- 0934783 (006610EP)	THOR- PO1112EP	EP	VENTRICULAR CUFF	13833715.9	08/28/13	Thoratec Corporation
096205- 0898459 (006610PC)	THOR- PO1112WO	PCT	VENTRICULAR CUFF	PCT/US2013/056952	08/28/13	Thoratec Corporation
096205- 0898460 (006610US)	THOR- PO1112	US	VENTRICULAR CUFF	13/832,657	3/15/13	Thoratec Corporation
096205- 0898088 (006700US)	THOR- PO1113A	US	START-UP ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	61/695,469	8/31/12	Thoratec Corporation
096205- 0934791 (006710EP)	THOR- PO1113EP	EP	START-UP ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	13832449.6	08/30/13	Thoratec Corporation
096205- 0898025 (006710PC)	THOR- PO1113WO	PCT	START-UP ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	PCT/US2013/057540	08/30/13	Thoratec Corporation
096205- 0898009 (006710US)	THOR- PO1113	US	START-UP ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	14/014,957 9,427,510	08/30/13 08/30/16	Thoratec Corporation
096205-	THOR-	US	START-UP ALGORITHM	15/219,578	07/26/16	Thoratec Corporation

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1011805 (006711US)	P01113D		FOR AN IMPLANTABLE BLOOD PUMP			
096205- 0898014 (006800PC)	THOR- P01114WO	PCT	INSTABILITY DETECTION ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	PCT/US2013/057548	8/30/13	Thoratec Corporation
096205- 0898089 (006800US)	THOR- P01114A	US	INSTABILITY DETECTION ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	61/695,476	8/31/12	Thoratec Corporation
096205- 0935481 (006810EP)	THOR- P01114EP	EPO	INSTABILITY DETECTION ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	13832809.1 2890420	8/30/13 7/8/15	Thoratec Corporation
096205- 0898010 (006810US)	THOR- P01114	US	INSTABILITY DETECTION ALGORITHM FOR AN IMPLANTABLE BLOOD PUMP	14/015,469	8/30/13	Thoratec Corporation
096205- 0898098 (006900US)	THOR- P01115A	US	HALL SENSOR MOUNTING IN AN IMPLANTABLE BLOOD PUMP	61/695,624	8/31/12	Thoratec Corporation
096205- 0935488 (006910EP)	THOR- P01115EP	EPO	HALL SENSOR MOUNTING IN AN IMPLANTABLE BLOOD PUMP	13832936.2 2890417	8/30/13 7/8/15	Thoratec Corporation
096205- 0898015 (006910PC)	THOR- P01115WO	PCT	HALL SENSOR MOUNTING IN AN IMPLANTABLE BLOOD PUMP	PCT/US2013/057553	8/30/13	Thoratec Corporation
096205- 0898011 (006910US)	THOR- P01115US1	US	HALL SENSOR MOUNTING IN AN IMPLANTABLE BLOOD PUMP	14/015,542 9,492,599	8/30/13 11/15/16	Thoratec Corporation
096205- 1021589 (006911US)	THOR- P01115C1	US	SENSOR MOUNTING IN AN IMPLANTABLE BLOOD PUMP	15/286,449	8/30/13	Thoratec Corporation
096205- 0898012 (006920US)	THOR- P01115US2	US	HALL SENSOR MOUNTING IN AN IMPLANTABLE BLOOD PUMP	14/015,630	10/5/16	Thoratec Corporation
096205- 0898006 (007000US)	THOR- P01117	US	BLOOD PUMP ROTOR BEARINGS	13/804,983 9,144,638	03/14/13 09/29/15	Thoratec Corporation
096205- 0950829 (007010US)	THOR- P01117C	US	BLOOD PUMP ROTOR BEARINGS	14/835,572	08/25/15	Thoratec Corporation
096205- 0899816 (007300DE)	THOR- P05020DE	DE	AN INTEGRATED CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE- BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	07106451.3 602007026649.1	04/18/07 11/14/12	Thoratec Corporation University of Maryland Baltimore
096205-	THOR-	EP	AN INTEGRATED	07106451.3	04/18/07	Thoratec Corporation

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0898499 (007300EP)	POS020EP		CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE-BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	1930034	11/14/12	University of Maryland Baltimore
096205-0899819 (007300FR)	THOR-POS020FR	FR	AN INTEGRATED CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE-BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	07106451.3 1930034	04/18/07 11/14/12	Thoratec Corporation University of Maryland Baltimore
096205-0899820 (007300GB)	THOR-POS020GB	GB	AN INTEGRATED CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE-BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	07106451.3 1930034	04/18/07 11/14/12	Thoratec Corporation University of Maryland Baltimore
096205-0899821 (007300IE)	THOR-POS020IE	IE	AN INTEGRATED CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE-BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	07106451.3 1930034	04/18/07 11/14/12	Thoratec Corporation University of Maryland Baltimore
096205-0899822 (007300IT)	THOR-POS020IT	IT	AN INTEGRATED CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE-BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	07106451.3 1930034	04/18/07 11/14/12	Thoratec Corporation University of Maryland Baltimore
096205-0899823 (007300NL)	THOR-POS020NL	NL	AN INTEGRATED CENTRIFUGAL BLOOD PUMP-OXYGENATOR, AN EXTRACORPOREAL LIFE SUPPORT SYSTEM AND A METHOD OF DE-BUBBLING AND PRIMING AN EXTRACORPOREAL LIFE SUPPORT SYSTEM	07106451.3 1930034	04/18/07 11/14/12	Thoratec Corporation University of Maryland Baltimore
096205-0900094 (007600AU)	THOR-D01071AU1	AU	IMPLANTABLE BLOOD PUMP	14690/2010	10/29/10	Thoratec Corporation
096205-0900101	THOR-D01071AU2	AU	IMPLANTABLE BLOOD PUMP	15731/2010	10/29/10	Thoratec Corporation

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(007610AU)						
096205-0900122 (007620AU)	THOR- D01071AU3	AU	IMPLANTABLE BLOOD PUMP	15733/2010	10/29/10	Thoratec Corporation
096205-0900121 (007600CA)	THOR- D01071CA1	CA	IMPLANTABLE BLOOD PUMP	137,675	10/27/10	Thoratec Corporation
096205-0900120 (007610CA)	THOR- D01071CA2	CA	IMPLANTABLE BLOOD PUMP	138,550	10/27/10	Thoratec Corporation
096205-0900119 (007600CN)	THOR- D01071CN	CN	IMPLANTABLE BLOOD PUMP	201030590013.1	10/29/10	Thoratec Corporation
096205-0900118 (007600EP)	THOR- D01071EP1	EU	IMPLANTABLE BLOOD PUMP	001773581-0001	10/29/10	Thoratec Corporation
096205-0900263 (007610EP)	THOR- D01071EP2	EU	IMPLANTABLE BLOOD PUMP	001883581-0002	10/27/10	
096205-0900366 (007620EP)	THOR- D01071EP3	EU	IMPLANTABLE BLOOD PUMP	001773581-0003	10/27/10	
096205-0900370 (007630EP)	THOR- D01071EP4	EU	IMPLANTABLE BLOOD PUMP	001773581-0004	10/27/10	
096205-0900371 (007640EP)	THOR- D01071EP5	EU	IMPLANTABLE BLOOD PUMP	001773581-0005	10/27/10	
096205-0900374 (007650EP)	THOR- D01071EP6	EU	IMPLANTABLE BLOOD PUMP	001773581-0006	10/27/10	
096205-0900375 (007660EP)	THOR- D01071EP7	EU	IMPLANTABLE BLOOD PUMP	001773581-0007	10/27/10	
096205-0900377 (007670EP)	THOR- D01071EP8	EU	IMPLANTABLE BLOOD PUMP	001773581-0008	10/27/10	
096205-0900378 (007680EP)	THOR- D01071EP9	EU	IMPLANTABLE BLOOD PUMP	001773581-0009	10/27/10	
096205-0900383 (007600JP)	THOR- D01071JP1	JP	IMPLANTABLE BLOOD PUMP	1431977	12/16/11	
096205-0900385 (007610JP)	THOR- D01071JP2	JP	IMPLANTABLE BLOOD PUMP	1423744	8/26/11	
096205-0900396 (007620JP)	THOR- D01071JP3	JP	IMPLANTABLE BLOOD PUMP	1432240	12/16/11	
096205-0900397 (007600SG)	THOR- D01071SG	SG	IMPLANTABLE BLOOD PUMP	D2010/1019/T	12/15/10	
096205-0900398 (007600TW)	THOR- D01071TW	TW	IMPLANTABLE BLOOD PUMP	099305977	11/22/10	Thoratec Corporation
096205-0900095	THOR- D01071	US	IMPLANTABLE BLOOD PUMP	29/368,272 0669,585	8/20/10 10/23/12	

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(007600US)						
096205- 0901859 (007700AU)	THOR- D01081AU	AU	IMPLANTABLE BLOOD PUMP	13874/2011	9/2/11	Thoratec Corporation
096205- 0901878 (007710AU)	THOR- D01080AU	AU	IMPLANTABLE BLOOD PUMP	1478/2011	10/21/11	Thoratec Corporation
096205- 0901879 (007720AU)	THOR- D01080XAU	AU	IMPLANTABLE BLOOD PUMP	15164/2011	11/10/11	Thoratec Corporation
096205- 0901880 (007730AU)	THOR- D01080XCA U	AU	IMPLANTABLE BLOOD PUMP	10421/2012	11/10/11	Thoratec Corporation
096205- 0901850 (007700CA)	THOR- D01081CA	CA	IMPLANTABLE BLOOD PUMP	142,111	9/2/11	Thoratec Corporation
096205- 0901863 (007710CA)	THOR- D01080CA	CA	IMPLANTABLE BLOOD PUMP	142,806	10/21/11	Thoratec Corporation
096205- 0901872 (007720CA)	THOR- D01080XCA	CA	IMPLANTABLE BLOOD PUMP	142,805	10/21/11	Thoratec Corporation
096205- 0901861 (007700CN)	THOR- D01081CN	CN	IMPLANTABLE BLOOD PUMP	201130306307.1	9/2/11	Thoratec Corporation
096205- 0901871 (007720CN)	THOR- D01080CN	CN	IMPLANTABLE BLOOD PUMP	201130375206.X	10/21/11	Thoratec Corporation
096205- 0900400 (007700EP)	THOR- D01081EU	EU	IMPLANTABLE BLOOD PUMP	001911629-0001	9/2/11	
096205- 0900406 (007710EP)	THOR- D01080EU	EU	IMPLANTABLE BLOOD PUMP	001936014-0001	10/21/11	
096205- 0900405 (007720EP)	THOR- D01080CEP	EU	IMPLANTABLE BLOOD PUMP	001936550-0001	10/21/11	
096205- 0900404 (007730EP)	THOR- D01080C2EP	EU	IMPLANTABLE BLOOD PUMP	001936014-0002	10/21/11	
096205- 0900403 (007740EP)	THOR- D01080XCE U	EU	IMPLANTABLE BLOOD PUMP	001936014-0003	10/21/11	
096205- 0900402 (007750EP)	THOR- D01071EU	EU	IMPLANTABLE BLOOD PUMP	001936014-0004	10/21/11	
096205- 0900401 (007760EP)	THOR- D01071CEU	EU	IMPLANTABLE BLOOD PUMP	001936014-0005	10/21/11	
096205- 0901866 (007700IL)	THOR- D01081IL	IL	IMPLANTABLE BLOOD PUMP	51502	9/4/11	Thoratec Corporation
096205- 0901862 (007700IN)	THOR- D01081IN	IN	IMPLANTABLE BLOOD PUMP	239134	9/2/11	Thoratec Corporation
096205- 0901869	THOR- D01081JP	JP	IMPLANTABLE BLOOD PUMP	2011-020022	9/2/11	Thoratec Corporation

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(007700JP)						
096205- 0901874 (007710JP)	THOR- D01080XJP	JP	IMPLANTABLE BLOOD PUMP	2011-024252	10/21/11	Thoratec Corporation
096205- 0901875 (007720JP)	THOR- D01080XJP2	JP	IMPLANTABLE BLOOD PUMP	2011-024528	10/25/11	Thoratec Corporation
096205- 0902638 (007730JP)	THOR- D01080XJP3	JP	IMPLANTABLE BLOOD PUMP	2012-018030	10/25/11	Thoratec Corporation
096205- 0901868 (007700SG)	THOR- D01081SG	SG	IMPLANTABLE BLOOD PUMP	D2011/947/G	9/2/11	Thoratec Corporation
096205- 0901867 (007700TW)	THOR- D01081TW	TW	IMPLANTABLE BLOOD PUMP	100304583	9/2/11	Thoratec Corporation
096205- 0901876 (007710TW)	THOR- D01080XTW	TW	IMPLANTABLE BLOOD PUMP	100305741	10/21/11	Thoratec Corporation
096205- 0901877 (007720TW)	THOR- D01080XTW	TW	IMPLANTABLE BLOOD PUMP	100305741	10/24/11	Thoratec Corporation
096205- 0901857 (007700US)	THOR- D01081	US	IMPLANTABLE BLOOD PUMP	29/386,544	3/2/11	Thoratec Corporation
096205- 0901865 (007710US)	THOR- D01080	US	IMPLANTABLE BLOOD PUMP	29/390,200 D671646	3/2/11 1/27/12	Thoratec Corporation
096205- 0901864 (007720US)	THOR- D01080C	US	IMPLANTABLE BLOOD PUMP	29/407,916	12/5/11	Thoratec Corporation
096205- 0901873 (007730US)	THOR- D01080X	US	IMPLANTABLE BLOOD PUMP	29/391,080	5/3/11	Thoratec Corporation
096205- 0901870 (007740US)	THOR- D01080XC	US	IMPLANTABLE BLOOD PUMP	29/407,914	12/5/11	Thoratec Corporation
096205- 0902639 (008000US)	THOR- P01042	US	COATED VASCULAR GRAFTS AND METHODS OF USE	09/933,256 6,939,377	08/20/01 09/06/05	Thoratec Corporation
096205- 0902640 (008100US)	THOR- P01028D2	US	STEP-DOWN SKELETAL MUSCLE ENERGY CONVERSION METHOD	08/483,420 5,653,676	06/07/95 08/05/97	Thoratec Corporation
096205- 0902641 (008200US)	THOR- P01028D1	US	STEP-DOWN SKELETAL MUSCLE ENERGY CONVERSION SYSTEM	08/474,018 5,701,919	06/07/95 12/30/97	Thoratec Corporation
096205- 0903399 (008300US)	THOR- P01136A	US	TRIPLE HELIX DRIVELINE CABLE AND METHODS OF ASSEMBLY AND USE	62/045,365	9/3/14	Thoratec Corporation
096205- 0909956 (008310PC)	THOR- P01136WO	PCT	TRIPLE HELIX DRIVELINE CABLE AND METHODS OF ASSEMBLY AND USE	PCT/US2015/048384	09/03/15	
096205- 0909908 (008310US)	THOR- P01136	US	TRIPLE HELIX DRIVELINE CABLE AND METHODS OF ASSEMBLY AND USE	14/844,567	09/03/15	Thoratec Corporation
096205- 0903925	THOR- P01138A1	US	PROTECTIVE CAP FOR DRIVELINE CABLE	61/980,034	4/15/14	Thoratec Corporation

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(008500US)			CONNECTOR			
096205-0911855 (008510US)	THOR-PO1138A2	US	PROTECTIVE CAP FOR DRIVELINE CABLE CONNECTOR	62/044,809	9/2/14	Thoratec Corporation
096205-0935566 (008520US)	THOR-PO1138	US	PROTECTIVE CAP FOR DRIVELINE CABLE CONNECTOR	14/687,805	04/15/15	Thoratec Corporation
096205-0904931 (008600US)	THOR-PO1139A	US	METHODS AND SYSTEMS FOR POWER SAVING AND DISABLING PULSATILITY	61/979,840	4/14/14	Thoratec Corporation
096205-1012819 (008610CN)	THOR-PO1139CN	CN	METHODS AND SYSTEMS FOR POWER SAVING AND DISABLING PULSATILITY	201580008732.8	4/15/15	Thoratec Corporation
096205-1012830 (008610EP)	PO1139EP	EP	METHODS AND SYSTEMS FOR POWER SAVING AND DISABLING PULSATILITY	15779274.8	4/15/15	Thoratec Corporation
096205-0938325 (008610PC)	THOR-PO1139WO	PCT	METHODS AND SYSTEMS FOR POWER SAVING AND DISABLING PULSATILITY	PCT/US2015/026026	4/15/15	Thoratec Corporation
096205-0936249 (008610US)	THOR-PO1139	US	METHODS AND SYSTEMS FOR CONTROLLING A BLOOD PUMP	14/687,643	4/15/15	Thoratec Corporation
096205-0904933 (008700US)	THOR-PO1140A	US	METHODS AND SYSTEMS FOR UPGRADING VENTRICLE ASSIST DEVICES	61/979,843	April 15, 2014	Thoratec Corporation
096205-1012831 (008710CN)	PO1140CN	CN	METHODS AND SYSTEMS FOR UPGRADING VENTRICLE ASSIST DEVICES	201580008726.2	4/15/15	Thoratec Corporation
096205-1012832 (008710EP)	THOR-PO1140EP	EP	METHODS AND SYSTEMS FOR UPGRADING VENTRICLE ASSIST DEVICES	15780085.5	04/15/15	Thoratec Corporation
096205-0940900 (008710PC)	THOR-PO1140WO	PCT	METHODS AND SYSTEMS FOR UPGRADING VENTRICLE ASSIST DEVICES	PCT/US2015/026030	4/15/15	Thoratec Corporation
096205-0940899 (008710US)	THOR-PO1140	US	METHODS AND SYSTEMS FOR UPGRADING VENTRICLE ASSIST DEVICES	14/687,824	4/15/15	Thoratec Corporation
096205-0904934 (008800US)	THOR-PO1141A	US	METHODS AND SYSTEMS FOR STORING PATIENT SPECIFIC SETTINGS ON VENTRICLE ASSIST DEVICES	61/979,811	4/15/14	Thoratec Corporation
096205-0910830 (008810US)	THOR-PO1141A2	US	VENTRICULAR ASSIST DEVICES	62/025,414	7/16/14	Thoratec Corporation
096205-1012833 (008820EP)	THOR-PO1141EP	EP	VENTRICULAR ASSIST DEVICES	15780592.4	04/15/15	Thoratec Corporation

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096205-0939695 (008820PC)	THOR-P01141WO	PCT	VENTRICULAR ASSIST DEVICES	PCT/US2015/026031	04/15/15	
096205-0939690 (008820US)	THOR-P01141	US	VENTRICULAR ASSIST DEVICES	14/687,655	04/15/15	Thoratec Corporation
096205-0904935 (008900US)	THOR-P01142A	US	METHODS AND SYSTEMS FOR PROVIDING BATTERY FEEDBACK TO PATIENT	61/979,845	4/15/14	Thoratec Corporation
096205-1012835 (008910EP)	THOR-P01142EP	EP	METHODS AND SYSTEMS FOR PROVIDING BATTERY FEEDBACK TO PATIENT	15780616.7	04/15/15	Thoratec Corporation
096205-0939715 (008910PC)	THOR-P01142WO	PCT	METHODS AND SYSTEMS FOR PROVIDING BATTERY FEEDBACK TO PATIENT	PCT/US2015/026029	04/15/15	
096205-0939714 (008910US)	THOR-P01142	US	METHODS AND SYSTEMS FOR PROVIDING BATTERY FEEDBACK TO PATIENT	14/687,746	04/15/15	Thoratec Corporation
096205-0904996 (009100US)	THOR-P03012	US	CONTROL SYSTEMS FOR ROTARY BLOOD PUMPS	11/592,354	11/3/06	Thoratec Corporation
096205-0904995 (009110US)	THOR-P03012C1	US	CONTROL SYSTEMS FOR ROTARY BLOOD PUMPS	12/468,951 8,657,733	11/3/06	Thoratec Corporation
096205-0904993 (009120US)	THOR-P03012C2	US	CONTROL SYSTEMS FOR ROTARY BLOOD PUMPS	14/162,599 9,039,595	1/23/14 5/26/15	Thoratec Corporation
096205-0905782 (009200US)	THOR-P01145A	US	METHODS AND SYSTEMS FOR LVAD OPERATION DURING COMMUNICATION LOSSES	61/979,803	04/15/14	Thoratec Corporation
096205-1012834 (009210EP)	THOR-P01145EP	EPO	METHODS AND SYSTEMS FOR LVAD OPERATION DURING COMMUNICATION LOSSES	15779178.1	4/15/15	Thoratec Corporation
096205-0940907 (009210PC)	THOR-P01145WO	PCT	METHODS AND SYSTEMS FOR LVAD OPERATION DURING COMMUNICATION LOSSES	PCT/US2015/026027	5/20/09 2/25/14	
096205-0940904 (009210US)	THOR-P01145	US	METHODS AND SYSTEMS FOR LVAD OPERATION DURING COMMUNICATION LOSSES	14/687,817	04/15/15	Thoratec Corporation
096205-0915777 (009400US)	THOR-P01067A	US	APPARATUS AND METHOD FOR MODIFYING PRESSURE-FLOW CHARACTERISTICS OF A PUMP	61/357,440	6/22/10	
096205-	THOR-	AU	APPARATUS AND	2011270999	06/22/11	Thoratec Corporation

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0915966 (009410AU)	PO1067AU		METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	2011270999	02/25/16	
096205- 0915967 (009410CA)	THOR- PO1067CA	CA	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	2,802,215	6/22/11	Thoratec Corporation
096205- 0915968 (009410EP)	THOR- PO1067EP	EP	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	11729848.9	06/22/11	Thoratec Corporation
096205- 0915969 (009410JP)	THOR- PO1067JP	JP	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	2013-516734 5540153	06/22/11 05/09/14	Thoratec Corporation
096205- 0915954 (009410PC)	THOR- PO1067WO	PCT	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	PCT/US2011/041449	6/22/11	Thoratec Corporation
096205- 0915958 (009410TW)	THOR- PO1067TW	TW	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	100121834	6/22/11	Thoratec Corporation
096205- 0915953 (009410US)	THOR- PO1067	US	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	13/166,680 9,089,635	06/22/11 07/28/15	Thoratec Corporation
096205- 0934568 (009411US)	THOR- PO1067C	US	APPARATUS AND METHOD FOR MODIFYING PRESSURE- FLOW CHARACTERISTICS OF A PUMP	14/746,527	06/22/15	Thoratec Corporation
096205- 0915970 (009500US)	THOR- PO1069A	US	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	61/357,439	6/22/10	Thoratec Corporation
096205- 0915984 (009500CA)	THOR- PO1069CA	CA	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	2,802,217	06/22/11	Thoratec Corporation
096205- 0915985 (009500EP)	THOR- PO1069EP	EP	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	11729852.1	06/22/11	Thoratec Corporation
096205- 0915982 (009500TW)	THOR- PO1069TW	TW	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	100121835	06/22/11	Thoratec Corporation
096205- 0915980 (009500US)	THOR- PO1069	US	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID	13/166,771 8,905,910	06/22/11 12/09/14	Thoratec Corporation

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096205-0915983 (009510AU)	THOR- P01069AU	AU	DELIVERY SYSTEM FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	2011270881 2011270881	06/22/11 02/11/16	Thoratec Corporation
096205-0915986 (009510JP)	THOR- P01069JP	JP	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	2013-516752 5898190	06/22/11 03/11/16	Thoratec Corporation
096205-0915981 (009510PC)	THOR- P01069WO	PCT	FLUID DELIVERY SYSTEM AND METHOD FOR MONITORING FLUID DELIVERY SYSTEM	PCT/US2011/041534	06/22/11	Thoratec Corporation
096205-0921015 (009600US)	THOR- P01158A	US	AXIAL FLOW BLOOD PUMP	62/162,205	5/15/15	Thoratec Corporation
096205-1009157 (009610PC)	THOR- P01158WO	PCT	IMPROVED AXIAL FLOW BLOOD PUMP	PCT/US2016/032516	5/13/16	Thoratec Corporation
096205-0925992 (009700US)	THOR- P01119A	US	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	62/084,946	11/26/14	Thoratec Corporation
096205-0950898 (009710US)	THOR- P01119	US	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	14/952,296	11/25/15	Thoratec Corporation
096205-0950896 (009710PC)	THOR- P01119WO	US	PUMP AND METHOD FOR MIXED FLOW BLOOD PUMPING	PCT/US2015/062689	11/25/15	Thoratec Corporation
096205-0941716 (009800US)	THOR- P01153A	US	BLOOD PUMP CONTROLLERS AND METHODS OF USE FOR IMPROVED ENERGY EFFICIENCY	62/211,618	8/28/15	Thoratec Corporation
096205-1013243 (009800PC)	THOR- P01153WO	PCT	BLOOD PUMP CONTROLLERS AND METHODS OF USE FOR IMPROVED ENERGY EFFICIENCY	PCT/US2016/049674	8/26/16	Thoratec Corporation
096205-0941717 (009900US)	THOR- P01151A	US	CANTILEVERED ROTOR PUMP AND METHODS FOR AXIAL FLOW BLOOD PUMPING	62/195,258	07/21/15	Thoratec Corporation
096205-1012843 (009910PC)	THOR- P01151WO	PCT	CANTILEVERED ROTOR PUMP AND METHODS FOR AXIAL FLOW BLOOD PUMPING	PCT/US2016/043366	07/21/16	Thoratec Corporation
096205-1012840 (009910US)	THOR- P01151	US	CANTILEVERED ROTOR PUMP AND METHODS FOR AXIAL FLOW BLOOD PUMPING	15/216,528	07/21/16	Thoratec Corporation
096205-0941718 (010000US)	THOR- P01152A	US	VENTRICULAR ASSIST DEVICES HAVING A HOLLOW ROTOR AND METHODS OF USE	62/186,202	6/29/15	Thoratec Corporation
096205-1013100 (010010PC)	THOR- P01152WO	PCT	VENTRICULAR ASSIST DEVICES HAVING A HOLLOW ROTOR AND METHODS OF USE	PCT/US2016/040053	6/29/16	Thoratec Corporation

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096205-1013096 (010010US)	THOR-P01152	US	VENTRICULAR ASSIST DEVICES HAVING A HOLLOW ROTOR AND METHODS OF USE	15/196,436	6/29/16	Thoratec Corporation
096205-0941719 (011000US)	THOR-P01155A	US	FLOW ESTIMATION USING HALL-EFFECT SENSORS	62/194,608	7/20/15	Thoratec Corporation
096205-1015559 (011010PC)	THOR-P01155WO	PCT	FLOW ESTIMATION USING HALL-EFFECT SENSORS	PCT/US2016/042922	07/19/16	Thoratec Corporation
096205-1015557 (011010US)	THOR-P01155	US	FLOW ESTIMATION USING HALL-EFFECT SENSORS	15/214,099	07/19/16	Thoratec Corporation
096205-0941720 (012000US)	THOR-P01154A	US	STRAIN GAUGE FOR FLOW ESTIMATION	62/194,700	07/20/15	Thoratec Corporation
096205-1015564 (012010PC)	THOR-P01154WO	PCT	STRAIN GAUGE FOR FLOW ESTIMATION	PCT/US2016/042795	07/18/16	Thoratec Corporation
096205-1015561 (012010US)	THOR-P01154	US	STRAIN GAUGE FOR FLOW ESTIMATION	15/212,721	07/18/16	Thoratec Corporation
096205-0949898 (013000US)	THOR-P01159A	US	BLOOD PUMP CONTROLLERS HAVING DAISY-CHAINED BATTERIES	62/258,205	11/20/15	Thoratec Corporation
096205-0957254 (014000US)	THOR-P01160A	US	ENERGY MANAGEMENT OF BLOOD PUMP CONTROLLERS	62/257,894	11/20/15	Thoratec Corporation
096205-0957255 (015000US)	THOR-P01161A	US	SYSTEM ARCHITECTURE THAT ALLOWS PATIENT REPLACEMENT OF VAD CONTROLLER/INTERFACE MODULE WITHOUT DISCONNECTION OF OLD MODULE	62/258,035	11/20/15	Thoratec Corporation
096205-0958725 (016000US)	THOR-P01165A1	US	CONNECTORS AND CABLES FOR USE WITH VENTRICLE ASSIST SYSTEMS	62/258,292	11/20/15	Thoratec Corporation
096205-0970848 (017000US)	THOR-P01167A	US	COMPLIANT IMPLANTABLE CONNECTOR AND METHODS OF USE AND MANUFACTURE	62/332,987	05/06/16	Thoratec Corporation
096205-1009146 (023000US)	THOR-P01178A	US	HEART PUMP DRIVE LINE POWER MODULATION	62/399,639	09/28/16	Thoratec Corporation
096205-1011952 (025000US)	THOR-P01157A	US	DEVICES AND METHODS FOR MONITORING BEARING AND SEAL PERFORMANCE	62/374,726	08/12/16	Thoratec Corporation
093790-0580345 (033800US)	THOR-P05029 He/ph	US	MAGNETICALLY JOURNALLED ROTATIONAL ARRANGMENT	09/128,047 6,181,040	08/03/98 01/30/01	Thoratec Corporation
093790-0600200	THOR-P05033US	US	METHOD AND ARRANGEMENT FOR THE	09/381,775 6,236,130	11/12/99 05/22/01	Thoratec Corporation

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(042100US)			EXCITATION OF THE JOURNALLING WINDING AND THE DRIVE WINDING SYSTEMS IN ELECTRICAL MACHINES WITH MAGNETIC JOURNALLING, AND AN ELECTRICAL DRIVE			
093790-0604058 (042800US)	THOR-POS036US	US	MAGNETICALLY JOURNALLED ELECTRICAL DRIVE	09/446,157 6,268,675	12/16/99 07/21/01	
093790-0827911 (066720US)	THOR-POS015D	US	PUMP-INFLOW-CANNULA, A PUMP-OUTFLOW-CANNULA AND A BLOOD MANAGING SYSTEM	13/349,462	01/12/12	Thoratec Corporation

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