PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4800292

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CONFIRMATORY ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
THORATEC LLC	01/26/2018

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: 61

Property Type	Number
Patent Number:	9089329
Patent Number:	D487968
Patent Number:	D489234
Patent Number:	D514125
Patent Number:	D514126
Patent Number:	D616552
Patent Number:	D592357
Patent Number:	D557632
Patent Number:	D553328
Patent Number:	D571009
Patent Number:	D570644
Patent Number:	D594553
Patent Number:	6752826
Patent Number:	7288111
Patent Number:	7758629
Patent Number:	7297158
Patent Number:	7785438
Patent Number:	9125648
Patent Number:	8827887
Patent Number:	9555177

PATENT REEL: 045193 FRAME: 0930

504753564

Property Type	Number
Patent Number:	9044236
Patent Number:	9631754
Patent Number:	6227797
Patent Number:	6609883
Patent Number:	7156802
Patent Number:	6250880
Patent Number:	6638011
Patent Number:	6966748
Patent Number:	7476077
Patent Number:	8002518
Patent Number:	6866625
Patent Number:	8282359
Patent Number:	8870552
Patent Number:	8388649
Patent Number:	7988728
Patent Number:	6820057
Patent Number:	7798952
Patent Number:	8366599
Patent Number:	8366381
Patent Number:	8353686
Patent Number:	8827663
Patent Number:	8657733
Patent Number:	9039595
Patent Number:	7859208
Patent Number:	8152035
Patent Number:	8858416
Patent Number:	7862501
Patent Number:	7850594
Patent Number:	8096935
Patent Number:	7963905
Patent Number:	8876685
Application Number:	14135155
Application Number:	14808350
Application Number:	12590863
Application Number:	12590864
Application Number:	12945890
Application Number:	13035837
Application Number:	12966689

PATENT REEL: 045193 FRAME: 0931

Property Type	Number				
Application Number:	13213571				
Application Number:	14214546				
Application Number:	14452455				

CORRESPONDENCE DATA

Fax Number: (415)393-9887

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.

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Email: whitney.escalanti@squirepb.com

Correspondent Name: SQUIRE PATTON BOGGS (US) LLP

Address Line 1: 275 BATTERY STREET

Address Line 2: SUITE 2600

Address Line 4: SAN FRANCISCO, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER:	055590.00001
NAME OF SUBMITTER: NORMAN L. MORALES (REG. 55463)	
SIGNATURE:	/Norman L. Morales/
DATE SIGNED:	01/30/2018

Total Attachments: 9

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> PATENT REEL: 045193 FRAME: 0932

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

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CONFIRMATORY ASSIGNMENT Page 2 of 9

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: 1/26/2018

Thomas A. Rendos

Title: Division Counsel

TC1 LLC, Assignee

Dated: 1/26/201

Thomas A. Rendos

Title: Division Counsel

Thoratec LLC, Assignor

Exhibit A

1 Patents

SPB Ref. No.	Thoratec Ref.	Country	Title	Patent	Issue	Current Owner
3. 3	No.	Country	Title	Serial No.	Date	
055590.00216	D03054AU	Australia	SURGICAL TOOL	311985	14-Dec-06	THORATEC CORPORATION
055590.00361	P01044FR	France	LAYERED STENT-GRAFT AND METHODS OF MAKING THE SAME	1460972	17-Jun-15	THORATEC CORPORATION
055590.00362	P01044GB	United Kingdom	LAYERED STENT-GRAFT AND METHODS OF MAKING THE SAME	1460972	17-Jun-15	THORATEC CORPORATION
055590.00264	P01046DE2	Germany	FLEXIBLE STENT AND METHOD OF MAKING THE SAME	1955673	22-Sep-10	THORATEC CORPORATION
055590.00265	P01046FR2	France	FLEXIBLE STENT AND METHOD OF MAKING THE SAME	1955673	22-Sep-10	THORATEC CORPORATION
055590.00267	P01046GB2	United Kingdom	FLEXIBLE STENT AND METHOD OF MAKING THE SAME	1955673	22-Sep-10	THORATEC CORPORATION
055590.00364	P01068XDE	Germany	ATTACHMENT SYSTEM, DEVICE AND METHOD	602010028 831.5	4-Nov-15	THORATEC CORPORATION
055590.00314	P01068XEP	European Patent Convention	ATTACHMENT SYSTEM, DEVICE AND METHOD	EP 2498838	4-Nov-15	THORATEC CORPORATION
055590.00365	P01068XFR	France	ATTACHMENT SYSTEM, DEVICE AND METHOD	2498838	4-Nov-15	THORATEC CORPORATION
055590.00366	P01068XGB	United Kingdom	ATTACHMENT SYSTEM, DEVICE AND METHOD	2498838	4-Nov-15	THORATEC CORPORATION
055590.00319	P01068XJP	Japan	ATTACHMENT SYSTEM, DEVICE AND METHOD	5755656	5-Jun-15	THORATEC CORPORATION
055590.00342	P01078EP	European Patent Convention	COUPLING SYSTEM, APPLICATOR TOOL, ATTACHMENT RING AND METHOD FOR CONNECTING A CONDUIT TO BIOLOGICAL TISSUE	2677943	31-Aug-16	THORATEC CORPORATION
055590.00335	P01091	United States of America	ENGAGEMENT DEVICE AND METHOD FOR DEPLOYMENT OF ANASTOMOTIC CLIPS	9,089,329 B2	28-Jul-15	THORATEC CORPORATION
055590.00352	P03004DE	Germany	IMPROVED CANNULA	1605988	13-Aug-14	THORATEC CORPORATION
055590.00353	P03004FR	France	IMPROVED CANNULA	1605988	13-Aug-14	THORATEC CORPORATION
055590.00354	P03004GB	United Kingdom	IMPROVED CANNULA	1605988	19-Aug-14	THORATEC CORPORATION
	THOR-D03035AU	Australia	SPANNER	150790	21-Feb-03	THORATEC CORPORATION
055590.00206	THOR-D03036AU	Australia	BAG	151291	31-Mar- 03	THORATEC CORPORATION
055590.00047	THOR-D03039	United States of America	BAG	D487,968	6-Apr-04	THORATEC CORPORATION
055590.00048	THOR-D03040	United States of America	SPANNER	D489,234	4-May-04	THORATEC CORPORATION
	THOR-D03041AU	Australia	IMPELLER	157255	12-Jan-05	THORATEC CORPORATION
	THOR-D03042AU	Australia	IMPELLER	157256	12-Jan-05	THORATEC CORPORATION
055590.00049	THOR-D03043	United States of America	IMPELLER	D514,125	31-Jan-06	THORATEC CORPORATION

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055590.00050	THOR-D03044	United	IMPELLER	D514,126	31-Jan-06	THORATEC CORPORATION
		States of America				
055590.00211	THOR-D03045AU	Australia	CONTROLLER	308268	2-Aug-06	THORATEC CORPORATION; THE UNIVERSITY OF NEW SOUTH WALES
055590.00245	THOR-D03046	United States of America	MEDICAL DEVICE CONTROLLER	D616,552	25-May- 10	THORATEC CORPORATION
055590.00212	THOR-D03047AU	Australia	BUCKLE	308591	11-Aug-06	THORATEC CORPORATION; UNIVERSITY OF NSW
055590.00213	THOR-D03048AU	Australia	SHOULDER SLING	308592	11-Aug-06	THORATEC CORPORATION
	THOR-D03049AU	Australia	HARNESS	310056	18-Sep-06	THORATEC CORPORATION
055590.00244		United States of America	HARNESS	D592,357	12-May- 09	THORATEC CORPORATION
055590.00243	THOR-D03051	United States of America	BUCKLE	D557,632	18-Dec-07	THORATEC CORPORATION
055590.00242	THOR-D03052	United States of America	SHOULDER STRAP FOR USE WITH A BAG OR MEDICAL DEVICE	D553,328	23-Oct-07	THORATEC CORPORATION
055590.00215	THOR-D03053AU	Australia	TROCAR	311984	14-Dec-06	THORATEC CORPORATION
055590.00241	THOR-D03055	United States of America	TROCAR	D571,009	10-Jun-08	THORATEC CORPORATION
055590.00240	THOR-D03056	United States of America	CORER HANDLE	D570,644	10-Jun-08	THORATEC CORPORATION
055590.00217	THOR-D03057AU	Australia	PATIENT MEDICAL BINDER	315554	2-Aug-07	THORATEC CORPORATION
055590.00218	THOR-D03058AU	Australia	MEDICAL DEVICE	315728	21-Aug-07	THORATEC CORPORATION
055590.00219	THOR-D03059AU	Australia	CANNULA	316472	3-Oct-07	THORATEC CORPORATION
055590.00238	THOR-D03060	United States of America	CANNULA	D594,553	16-Jun-09	THORATEC CORPORATION
055590.00220	THOR-D03061AU	Australia	CORER BLADE PACKAGE	317052	22-Nov-07	THORATEC CORPORATION
	THOR-D03062AU	Australia	CONTROLLER	319681	29-May- 08	THORATEC CORPORATION
055590.00222	THOR-D03063AU	Australia	BATTERY CASING	319682	29-May- 08	THORATEC CORPORATION
055590.00004	THOR-P01044	United States of America	LAYERED STENT-GRAFT AND METHODS OF MAKING SAME	6,752,826	22-Jun-04	THORATEC CORPORATION
055590.00360	THOR-P01044DE	Germany	LAYERED STENT-GRAFT AND METHODS OF MAKING THE SAME	60247265. 2	17-Jun-15	THORATEC CORPORATION
055590.00012	THOR-P01044EP	European Patent Convention	LAYERED STENT-GRAFT AND METHODS OF MAKING THE SAME	1460972	17-Jun-15	THORATEC CORPORATION
055590.00014	THOR-P01044JP	Japan	LAYERED STENT-GRAFT AND METHODS OF MAKING THE SAME	4411431	27-Nov-09	THORATEC CORPORATION
055590.00302	THOR-P01045DE	Germany	COATED VASCULAR PROSTHESIS AND METHODS OF MANUFACTUE AND USE	1 471 952	3-Nov-04	THORATEC CORPORATION
055590.00300	THOR-P01045EP	European Patent	COATED VASCULAR PROSTHESIS AND METHODS OF	1 471 952		THORATEC CORPORATION

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		Convention	MANUFACTURE AND USE			
055590.00303	THOR-P01045FR	France	COATED VASCULAR PROTHESIS	1 471 952	3-Nov-04	THORATEC CORPORATION
		1	AND METHODS OF		all and a second	
			MANUFACTURE AND USE			
055590.00301	THOR-P01045GB	United	COATED VASCULAR PROSTHESIS	147952	3-Nov-04	THORATEC CORPORATION
		Kingdom	AND METHODS OF			
			MANUFACTURE AND USE			
055590.00003	THOR-P01046	United	FLEXIBLE STENT AND METHOD OF	7,288,111	30-Oct-07	THORATEC CORPORATION
		States of	MAKING THE SAME			
		America		<u> </u>	_	
055590.00020	THOR-P01046D	United	FLEXIBLE STENT AND METHOD OF	7,758,629	20-Jul-10	THORATEC CORPORATION
		States of	MAKING THE SAME	-		
055500 00057	THOR-P01046DE2	America	PEVIDLE CTELT AND METHOD OF	1055533	22.5 40	THORATEC CORROBATION
055590.00257	THOK-PUIU46DEZ	Germany	FLEXIBLE STENT AND METHOD OF	1955673	22-Sep-10	THORATEC CORPORATION
055590.00016	THOR-P01046EP1	European	MAKING THE SAME FLEXIBLE STENT AND METHOD OF	1487381	17-Nov-10	THORATEC CORPORATION
033330.00010	IHOK-POTO46CPT	Patent	MAKING THE SAME	140/301	17-1404-10	THORATEC CORPORATION
		Convention	WARING THE SAME			
055590.00025	THOR-P01046EP2	European	FLEXIBLE STENT AND METHOD OF	1955673	22-Sep-10	THORATEC CORPORATION
		Patent	MAKING THE SAME	2555575		
		Convention				
055590.00258	THOR-P01046FR1	France	FLEXIBLE STENT AND METHOD OF	1487381	17-Nov-10	THORATEC CORPORATION
			MAKING THE SAME	1		
055590.00260	THOR-	United	FLEXIBLE STENT AND METHOD OF	1487381	17-Nov-10	THORATEC CORPORATION
	P01046GB1	Kingdom	MAKING THE SAME			
055590.00018	THOR-P01046JP	Japan	FLEXIBLE STENT AND METHOD OF	5575669	27-Aug-10	THORATEC CORPORATION
			MAKING THE SAME			
055590.00009	THOR-P01051	United	A MULTILAYER COMPOSITE	7,297,158	20-Nov-07	THORATEC CORPORATION
		States of	VASCULAR ACCESS GRAFT			
000000	THOR POTOTAGE	America	A FILL THE AUCD COA COCCUTE	~ ==~		
055590.00022	THOR-P01051CA	Canada	A MULTILAYER COMPOSITE	2,570,405	24-Apr-12	THORATEC CORPORATION
055590.00032	THOR-P01051CH	Switzerland	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
000000000000000000000000000000000000000	THOR TOTOSICH	SWILLEITEITG	VASCULAR ACCESS GRAFT	1791376	17-3011-03	THORATEC CORPORATION
055590.00024	THOR-P01051D	United	A MULTILAYER COMPOSITE	7,785,438	31-Aug-10	THORATEC CORPORATION
		States of	VASCULAR ACCESS GRAFT	7,700,400	31-Aug-10	monarize com onarion
		America				
055590.00026	THOR-P01051DE	Germany	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
		·	VASCULAR ACCESS GRAFT			
055590.00023	THOR-P01051EP	European	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
		Patent	VASCULAR ACCESS GRAFT		1	
		Convention				
055590.00028	THOR-P01051FR	France	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
			VASCULAR ACCESS GRAFT			
055590.00031	THOR-P01051GB	United	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
255500 00000		Kingdom	VASCULAR ACCESS GRAFT			
055590.00029	THOR-P01051IE	Ireland	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
055590.00027	THOR-P01051IT	Italy	VASCULAR ACCESS GRAFT A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORRODATION
33330.00027	111014-0103111	italy	VASCULAR ACCESS GRAFT	1191310	17-3011-09	THORATEC CORPORATION
055590.00030	THOR-P01051NL	Netherland	A MULTILAYER COMPOSITE	1791576	17-Jun-09	THORATEC CORPORATION
		5	VASCULAR ACCESS GRAFT			
055590.00309	THOR-P01078	United	COUPLING SYSTEM, APPLICATOR	9,125,648	8-Sep-15	THORATEC CORPORATION
l l		States of	TOOL, ATTACHMENT RING AND	, ,, ,	» - = r	
l		America	METHOD FOR CONNECTING A		1	
			CONDUIT TO BIOLOGICAL TISSUE		<u> </u>	
)55590.00318	THOR-P01083	United	ASSEMBLY AND METHOD OF	8,827,887	9-Sep-14	THORATEC CORPORATION

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		States of	IMPLANTING A HEART ASSIST			
055500 00050		America	SYSTEM			
055590.00350	THOR-P01083D	United States of	NEEDLE GUARD, ASSEMBLY AND	9,555,177	31-Jan-17	THORATEC CORPORATION
		America	METHOD OF IMPLANTING A HEART ASSIST SYSTEM		1	
055590.00317	THOR-P01084	United	CORING KNIFE	9,044,236	2-Jun-15	THORATEC CORPORATION
055550.00517	111011-102004	States of	COMING MAILE	B2	Z-1011-72	I HORATEC CORPORATION
	İ	America		02	1	
055590.00338	THOR-P01094	United	TUBING ASSEMBLY, CLAMP, AND	9,631,754	25-Apr-17	THORATEC CORPORATION
000000.0000	711011102034	States of	TUBING CONNECTION METHOD	3,031,734	25-Api-17	THORATEC CONFORMION
		America	Tobal College (NET 110)			***
055590.00230	THOR-P03000US	United	ROTARY PUMP WITH	6,227,797	8-May-01	THORATEC CORPORATION
		States of	HYDRODYNAMICALLY	0,22.,,	0	
		America	SUSPENDED IMPELLER			
055590.00227	THOR-P03000C1	United	ROTARY PUMP WITH	6,609,883	26-Aug-03	THORATEC CORPORATION
		States of	HYDRODYNAMICALLY	-,,		
		America	SUSPENDED IMPELLER			
055590.00248	THOR-P03000C2	United	ROTARY PUMP WITH	7,156,802	2-Jan-07	THORATEC CORPORATION
		States of	HYDRODYNAMICALLY			
		America	SUSPENDED IMPELLER		n year	
055590.00229	THOR-P03000X	United	ROTARY PUMP WITH	6,250,880	26-Jun-01	THORATEC CORPORATION
		States of	EXCLUSIVELY			
		America	HYDRODYNAMICALLY			The second secon
			SUSPENDED IMPELLER			
055590.00228	THOR-P03000XC1	United	ROTARY PUMP WITH	6,638,011	28-Oct-03	THORATEC CORPORATION
		States of	EXCLUSIVELY			
		America	HYDRODYNAMICALLY			
······································			SUSPENDED IMPELLER			
055590.00247	THOR-P03000XC2	United	ROTARY PUMP WITH	6,966,748	22-Nov-05	THORATEC CORPORATION
		States of	EXCLUSIVELY]	
		America	HYDRODYNAMICALLY			
000000000000000000000000000000000000000	T1100 00000100		SUSPENDED IMPELLER			
055590.00246	THOR-P03000XC3	United	ROTARY PUMP WITH	7,476,077	13-Jan-09	THORATEC CORPORATION
		States of	EXCLUSIVELY			
		America	HYDRODYNAMICALLY			
055590.00054	THOR-P03000XC4	United	SUSPENDED IMPELLER ROTARY PUMP WITH	0.000 540		
033390.00034	1110K-P03000XC4	States of	HYDRODYNAMICALLY	8,002,518	23-Aug-11	THORATEC CORPORATION
		America	SUSPENDED IMPELLER]	
055590.00223	THOR-P03001US	United	ROTARY BLOOD PUMP AND	6 066 675	15-Mar-	THORATEC CORROBATION
00000000220	11101110300103	States of	CONTROL SYSTEM THEREFOR	6,866,625	05	THORATEC CORPORATION
		America	CONTROL STSTEM THEREFOR		03	
055590.00069	THOR-	United	ROTARY BLOOD PUMP AND	8,282,359	9-Oct-12	THORATEC CORPORATION
	P03001D2C1	States of	CONTROL SYSTEM THEREFOR	0,202,333	3-000-12	IIIONATEC CONFORATION
		America				
055590.00320	THOR-	United	ROTARY BLOOD PUMP AND	8,870,552	28-Oct-14	THORATEC CORPORATION
	P03001D2C2	States of	CONTROL SYSTEM THEREFOR	0,070,000	20 000 24	THORATEC COM ORATION
		America				
55590.00103	THOR-P03001DE	Germany	A ROTARY BLOOD PUMP AND	1176999	27-Jul-05	THORATEC CORPORATION
			CONTROL SYSTEM THEREFOR			
55590.00098	THOR-P03001EP1	European	A ROTARY BLOOD PUMP AND	1176999	27-Jul-05	THORATEC CORPORATION
		Patent	CONTROL SYSTEM THEREFOR			
		Convention				
55590.00101	THOR-P03001FR	France	A ROTARY BLOOD PUMP AND	1176999	27-Jul-05	THORATEC CORPORATION
			CONTROL SYSTEM THEREFOR			
55590.00104	THOR-P03001GB	United	A ROTARY BLOOD PUMP AND	1176999	27-Jul-05	THORATEC CORPORATION
i	1	Kingdom	CONTROL SYSTEM THEREFOR		ı	

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055590.00070	THOR-P03002D	United States of America	STAGED IMPLANTATION OF VENTRICULAR ASSIST DEVICES	8,388,649	5-Mar-13	THORATEC CORPORATION
055590.00141	THOR-P03002JP	Japan	STAGED IMPLANTATION OF VENTRICULAR ASSIST DEVICES	4164369	1-Aug-08	THORATEC CORPORATION
055590.00071	THOR-P03003US	United States of America	PHYSIOLOGICAL DEMAND RESPONSIVE CONTROL SYSTEM	7,988,728	2-Aug-11	THORATEC CORPORATION
055590.00109	THOR-P03004EP	European Patent Convention	IMPROVED CANNULA	1605988	13-Aug-14	THORATEC CORPORATION
055590,00110	THOR-P03004JP	Japan	IMPROVED CANNULA	4792388	29-Jul-11	THORATEC CORPORATION
055590.00135		United States of America	TELEMEDICINE SYSTEM	6,820,057	16-Nov-04	THORATEC CORPORATION
055590.00061	THOR-P03008US	United States of America	AXIAL FLOW BLOOD PUMP	7,798,952	21-Sep-10	THORATEC CORPORATION
055590.00256	THOR-P03008C	United States of America	AXIAL FLOW BLOOD PUMP	8,366,599	5-Feb-13	THORATEC CORPORATION
055590.00121	THOR-P03008JP1	Japan	IMPELLER	4889492	7-Mar- 2012	THORATEC CORPORATION
055590.00128	THOR-P03009JP	Japan	AN IMPROVED PERCUTANEOUS LEAD	4839224	7-Oct-11	THORATEC CORPORATION
055590.00288	THOR-P03000XC5	United States of America	Rotary Pump with Hydrodynamically Suspended Impeller	8,366,381	5-Feb-13	THORATEC CORPORATION
055590.00073	THOR-P03011C1	United States of America	ROTOR STABILITY OF A ROTARY PUMP	8,353,686	15-Jan-13	THORATEC CORPORATION
055590.00332	THOR-P03011C2	United States of America	ROTOR STABILITY OF A ROTARY PUMP	8,827,663	9-Sep-14	THORATEC CORPORATION
055590.00074	THOR-P03012C1	United States of America	CONTROL SYSTEMS FOR ROTARY BLOOD PUMPS	8,657,733	25-Feb-14	THORATEC CORPORATION
055590.00346	THOR-P03012C2	United States of America	CONTROL SYSTEMS FOR ROTARY BLOOD PUMPS	9,039,595 B2	26-May- 15	THORATEC CORPORATION
055590.00051	THOR-P03013US	United States of America	TUNING DC BRUSHLESS MOTORS	7,859,208	28-Dec-10	THORATEC CORPORATION
055590.00134	THOR-P03013JP	Japan	IMPROVEMENTS TO TUNING DC BRUSHLESS MOTORS	5193059	8-Feb-13	THORATEC CORPORATION
055590.00043	THOR-P03014US	United States of America	RESTRAINING DEVICE FOR A PERCUTANEOUS LEAD ASSEMBLY	8,152,035	10-Apr-12	THORATEC CORPORATION
055590.00343	THOR-P03017D	United States of America	IMPLANTABLE MEDICAL DEVICES	8,858,416	14-Oct-14	THORATEC CORPORATION
055590.00068	THOR-P03021	United States of America	SYSTEM FOR PREVENTING DIASTOLIC HEART FAILURE	7,862,501	4-Jan-11	THORATEC CORPORATION
055590.00042	THOR-P03023US	United States of America	PULSATILE CONTROL SYSTEM FOR A ROTARY BLOOD PUMP	7,850,594	14-Dec-10	THORATEC CORPORATION

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055590.00278	THOR-P03023C1	United States of America	PULSATILE CONTROL SYSTEM FOR A ROTARY BLOOD PUMP	8,096,935	17-Jan-12	THORATEC CORPORATION
055590.00044	THOR-P03024	United States of America	CONTROL SYSTEM FOR A BLOOD PUMP	7,963,905	21-Jun-11	THORATEC CORPORATION
055590.00055	THOR-P03025C	United States of America	BLOOD PUMP WITH AN ULTRASOUND TRANSDUCER	8,876,685	4-Nov-14	THORATEC CORPORATION
055590.00076	THOR-P03034AU	Australia	BLOOD PRESSURE DETECTING DEVICE AND SYSTEM	200425734 7	18-Jul-03	THORATEC CORPORATION
055590.00079	THOR-P03034JP	Japan	BLOOD PRESSURE DETECTING DEVICE AND SYSTEM	4741489	13-May- 11	THORATEC CORPORATION

2 Patent Applications

SPB Ref. No.	Thoratec Ref.	Country	Title	Applicatio	Filing	Current Owner
	No.			n No.	Date	
055590.00367 PO	P01078DE	Germany	COUPLING SYSTEM, APPLICATOR	12716787.	27-Feb-12	THORATEC CORPORATION
			TOOL, ATTACHMENT RING AND	2	ŀ	
			METHOD FOR CONNECTING A			
			CONDUIT TO BIOLOGICAL TISSUE			
055590.00368	P01078FR	France	COUPLING SYSTEM, APPLICATOR	12716787.	27-Feb-12	THORATEC CORPORATION
			TOOL, ATTACHMENT RING AND	2		
			METHOD FOR CONNECTING A	•		
			CONDUIT TO BIOLOGICAL TISSUE			
055590.00369	P01078GB	United	COUPLING SYSTEM, APPLICATOR	12716787.	27-Feb-12	THORATEC CORPORATION
		Kingdom	TOOL, ATTACHMENT RING AND	2		
			METHOD FOR CONNECTING A			
			CONDUIT TO BIOLOGICAL TISSUE			
055590.00345	P01116	United	SURGICAL TUNNELER	14/135,155	19-Dec-13	THORATEC CORPORATION
	-	States of				
		America				
055590.00311	P03009EP2	European	AN IMPROVED PERCUTANEOUS	EP1216260	2-Feb-05	THORATEC CORPORATION
		Patent	LEAD	8.9		
		Convention				
055590.00359	THOR-P01078D	United	COUPLING SYSTEM, APPLICATOR	14/808,350	24-Jul-15	THORATEC CORPORATION
		States of	TOOL, ATTACHMENT RING AND			
		America	METHOD FOR CONNECTING A	1		
			CONDUIT TO BIOLOGICAL TISSUE			
055590.00274	THOR-P01068	United	ATTACHMENT DEVICE AND	12/590,863	15-Nov-09	THORATEC CORPORATION
		States of	METHOD			
		America				
055590.00275	THOR-P01068D	United	ATTACHMENT DEVICE AND	12/590,864	15-Nov-09	THORATEC CORPORATION
		States of	METHOD			
		America				
055590.00277	THOR-P01068X	United	ATTACHMENT SYSTEM, DEVICE	12/945,890	14-Nov-10	THORATEC CORPORATION
		States of	AND METHOD			Name of the Control o
		America				
055590.00279	THOR-P01068XC1	United	Coring Knife	13/035,837	25-Feb-11	THORATEC CORPORATION
		States of				
·		America				
055590.00281	THOR-P01068XC3	United	ATTACHMENT METHOD	12/966,689	13-Dec-10	THORATEC CORPORATION

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055590.00297	THOR-P01072	United States of America	ASSEMBLY AND METHOD FOR STABILIZING A PERCUTANEOUS CABLE	13/213,571	19-Aug-11	THORATEC CORPORATION
055590.00347	THOR-P01122	United States of America	ANASTOMOTIC DEVICE AND METHOD	14/214,546	14-Mar- 14	THORATEC CORPORATION
055590.00363	THOR-P01122EP	European Patent Convention	ANASTOMOTIC DEVICE AND METHOD	14763595. 7	14-Mar- 14	THORATEC CORPORATION
055590.00146	THOR-P03003EP	European Patent Convention	PHYSIOLOGICAL DEMAND RESPONSIVE CONTROL SYSTEM	3798004.2	30-Sep-03	THORATEC CORPORATION
055590.00127	THOR-P03009EP1	European Patent Convention	AN IMPROVED PERCUTANEOUS LEAD	5700165.3	2-Feb-05	THORATEC CORPORATION
055590.00133	THOR-P03013EP	European Patent Convention	IMPROVEMENTS TO TUNING DC BRUSHLESS MOTORS	06828028. 8	18-Dec-06	THORATEC CORPORATION
055590.00349	THOR-P03017DC	United States of America	IMPLANTABLE MEDICAL DEVICES	14/452,455	5-Aug-14	THORATEC CORPORATION

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