

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5720385

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JOSEPH P. HIGGINS	08/06/2019
MATTHEW W. TILSTRA	08/06/2019
BENJAMIN D. HASELMAN	09/09/2019
MATTHEW D. CAMBRONNE	08/20/2019
TRISTAN A. VAN DE MOORTELE	08/22/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CARDIOVASCULAR SYSTEMS, INC.
<b>Street Address:</b>	1225 OLD HIGHWAY 8 NW
<b>City:</b>	ST. PAUL
<b>State/Country:</b>	MINNESOTA
<b>Postal Code:</b>	55112
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16524791
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(612)333-6798
<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>	
<b>Phone:</b>	612-333-2111
<b>Email:</b>	mjohnston@btlaw.com
<b>Correspondent Name:</b>	JEFFREY R. STONE, BARNES & THORNBURG LLP
<b>Address Line 1:</b>	225 SOUTH SIXTH STREET
<b>Address Line 2:</b>	SUITE 2800
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402
<b>ATTORNEY DOCKET NUMBER:</b>	68890.291929.631.US.U1
<b>NAME OF SUBMITTER:</b>	JEFFREY R. STONE
<b>SIGNATURE:</b>	/Jeffrey R. Stone/
<b>DATE SIGNED:</b>	09/16/2019
<b>Total Attachments: 5</b>	

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source=Assignments#page5.tif

**PATENT ASSIGNMENT TO CORPORATION WORLDWIDE**

WHEREAS, Joseph P. Higgins, a citizen of the United States, residing in Minnetonka, Minnesota;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled INTRAVASCULAR PUMP WITH CONTROLS AND DISPLAY SCREEN ON HANDLE, filed July 29, 2019 and assigned serial number 16/524,791;

AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Delaware and whose place of business and business address is 1225 Old Highway 8 NW, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his/her hand on the date indicated below.

  
\_\_\_\_\_  
Joseph P. Higgins

  
\_\_\_\_\_  
Date

*No Legalization Required*

DMS 14873853.1

**PATENT ASSIGNMENT TO CORPORATION WORLDWIDE**

WHEREAS, Matthew W. Tilstra, a citizen of the United States, residing in Rogers, Minnesota;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled INTRAVASCULAR PUMP WITH CONTROLS AND DISPLAY SCREEN ON HANDLE, filed July 29, 2019 and assigned serial number 16/524,791;

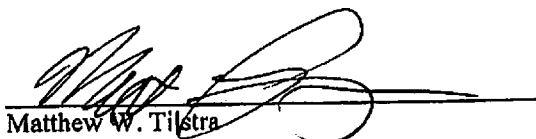
AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Delaware and whose place of business and business address is 1225 Old Highway 8 NW, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his/her hand on the date indicated below.

  
Matthew W. Tilstra

8-6-2019  
Date

*No Legalization Required*

DMS 14873896.1

**PATENT ASSIGNMENT TO CORPORATION WORLDWIDE**

WHEREAS, Benjamin D. Haselman, a citizen of the United States, residing in St. Paul, Minnesota;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled INTRAVASCULAR PUMP WITH CONTROLS AND DISPLAY SCREEN ON HANDLE, filed July 29, 2019 and assigned serial number 16/524,791;

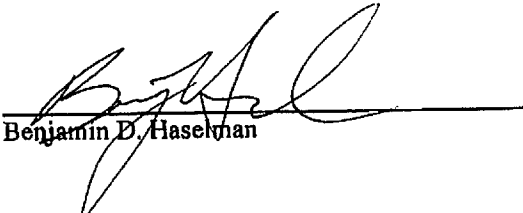
AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Delaware and whose place of business and business address is 1225 Old Highway 8 NW, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

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IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his/her hand on the date indicated below.

  
Benjamin D. Haselman

07 SEPT 2019  
Date

No Legalization Required

DMS 14873953.1

**PATENT ASSIGNMENT TO CORPORATION WORLDWIDE**

WHEREAS, Matthew D. Cambronne, a citizen of the United States, residing in North Oaks, Minnesota;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled INTRAVASCULAR PUMP WITH CONTROLS AND DISPLAY SCREEN ON HANDLE, filed July 29, 2019 and assigned serial number 16/524,791;

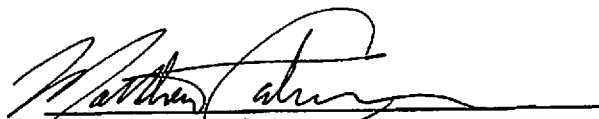
AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Delaware and whose place of business and business address is 1225 Old Highway 8 NW, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

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IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his/her hand on the date indicated below.

  
Matthew D. Cambronne

  
Date

*No Legalization Required*

DMS 14874025.1

**PATENT**  
**REEL: 050385 FRAME: 0557**

**PATENT ASSIGNMENT TO CORPORATION WORLDWIDE**

WHEREAS, Tristan A. Van de Moortele, a citizen of the United States, residing in Minneapolis, Minnesota;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled INTRAVASCULAR PUMP WITH CONTROLS AND DISPLAY SCREEN ON HANDLE, filed July 29, 2019 and assigned serial number 16/524,791;

AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Delaware and whose place of business and business address is 1225 Old Highway 8 NW, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

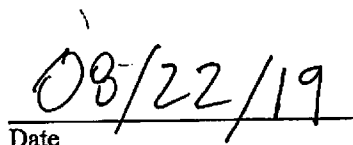
NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his/her hand on the date indicated below.

  
Tristan A. Van de Moortele

  
Date

*No Legalization Required*

DMS 14874102.1