

Response to Exhibit D-1
Responsive Chart for U.S. Patent No. 11,572,879 over HeartMate III: Pump Design for a Centrifugal LVAD with a Magnetically Levitated Rotor (“Bourque 2001”)

The following chart represents Miracor’s preliminary response to Defendants’ Invalidity Chart (“the invalidity chart”), identified as Exhibit D-1, for the application of “Bourque 2001” (also, “the reference;” K. Bourque, et al., “HeartMate III: Pump Design for a Centrifugal LVAD with a Magnetically Levitated Rotor,” ASAIO Journal 2001, 47:401-405) to U.S. Patent No. 11,351,357 (“the ’357 patent”). Defendants assert without evidence or explanation that Bourque 2001 is prior art to the ’357 patent. Miracor does not agree with or acquiesce to this assertion and reserves all rights to refute the status of Bourque 2001 as prior art.

Defendants assert that they apply the apparent claim constructions set forth in Miracor’s Initial Infringement Contentions. Defendants appear not to apply those apparent claim constructions, not to apply the apparent claim constructions set forth in Defendants’ Initial Noninfringement Contentions, and not to apply the plain and ordinary meaning of the claim terms. Nothing in this chart conveys agreement or acquiescence with any meaning that Defendants attempt to convey for any claim term.

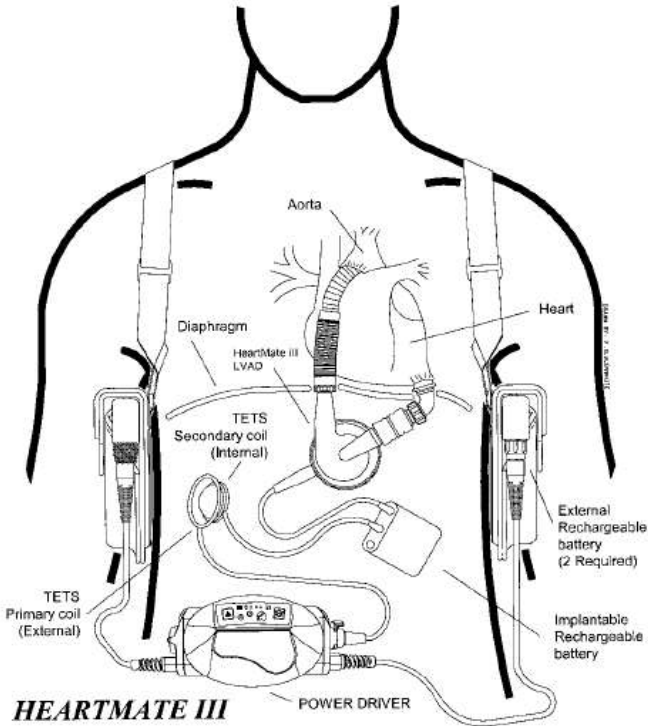
The invalidity chart fails to comply with LPR 2.3(b)(2). In particular, Defendants provide no detailed statement of whether the reference anticipates or renders obvious any claim. Instead Defendants assert that each element is disclosed, and if an element is not disclosed it is inherent, and if it is not inherent it can be found in one of the other cited references. Also, the invalidity chart provides no reason to combine any elements from different references.

The invalidity chart fails to comply with LPR 2.3(b)(3). In particular, Defendants do not identify where specifically in each alleged item of prior art each element of the asserted claims are found. All of the elements are met with a conclusory recitation that the reference discloses the claim element. Some of these recitations are followed by quotes from the reference, many of which do not include the relevant claim elements. At best, Defendants simply identify portions of the various references that they apparently believe disclose or render obvious various claim elements without explanation of how these disclosures correspond to the claim elements. Next, each element is met with an assertion that even if the element is not disclosed, it is inherent or obvious in combination with any of the other references, without any reasons given in support of this assertion. Miracor does not respond to Defendants’ arguments regarding combinations with other references as such a response would fall outside of LPR 2.5. This compliance with the rules does not indicate any agreement, acquiescence or waiver with respect to Defendants’ arguments regarding combinations with other references.

Because of Defendants’ failure to explain its purported invalidity positions, Miracor is limited in its ability to respond to them. Miracor reserves all rights to further respond should Defendants be allowed to expand their contentions. In the initial responsive chart

below, Miracor states as best it can, given Defendants' contentions, whether the reference includes the relevant claim element. Miracor may modify its response to each claim element subject to further explanation or definition by Defendants.

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
1	[PRE] A system for assisting the blood circulation of a heart, comprising:	<p>Bourque 2001 discloses "A system for assisting the blood circulation of a heart, comprising:" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 3</p>	Yes, subject to the limitations stated at the top of this document and the comments made throughout. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.</p>	
		<p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior</p>	

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	
	[1a] a heart assist pump device deliverable to the heart and comprising:	<p>Bourque 2001 discloses “a heart assist pump device deliverable to the heart and comprising” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at Abstract ABT-MIR-00000024 A long-term, compact left ventricular assist device (LVAD), the HeartMate III, has been designed and fabricated, featuring a centrifugal pump with a magnetically levitate rotor.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 The advent of the left ventricular assist device (LVAD) has provided significant benefit to certain [congestive heart failure] patients since becoming clinically available.</p> <p>Bourque 2001 at page 404 ABT-MIR-00000024 It was a fundamental goal of the HeartMate III mechanical design to achieve optimal pumping performance and to enclose a sophisticated motor in the simplest possible way, this being the best means of achieving success.</p>	<p>No. Bourque 2001 does not disclose or suggest a heart assist pump device that is deliverable or delivered to the heart. Instead, the pump is located in the “least obtrusive position,” spaced apart from the heart and connected to the heart by what Bourque 2001 calls an “inflow cannula” which does not meet the recitations of the claimed “inflow tube” of the claimed “heart assist pump device.” Bourque 2001 at 402.</p> <p>Bourque 2001’s “inflow cannula” is part of what Bourque 2001 calls an “inflow subassembly” comprising “a section that partially decouples the position ... of the heart from the pump and facilitates pump recovery at explant.” <i>Id.</i> at 402. In vivo bovine testing involved similar cannulation that spaces the “heart assist</p>

Bourque 2001 at fig. 3.

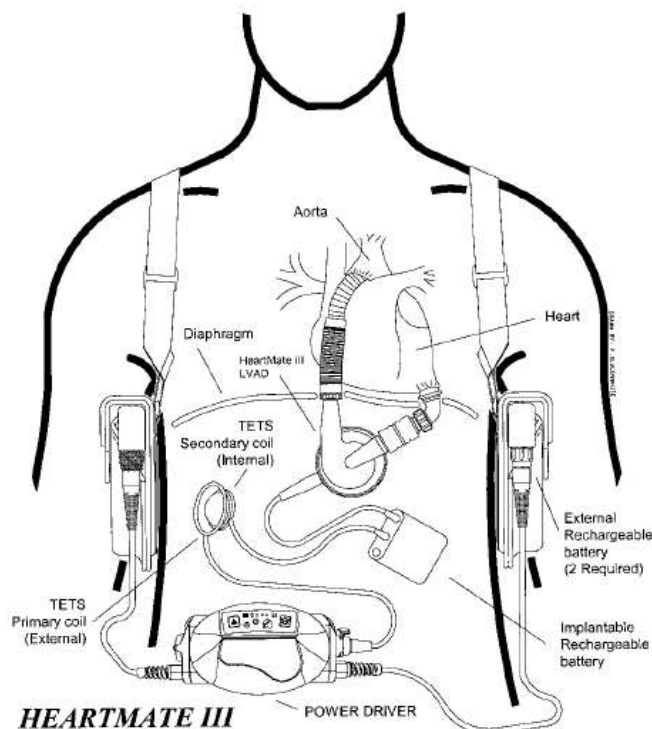
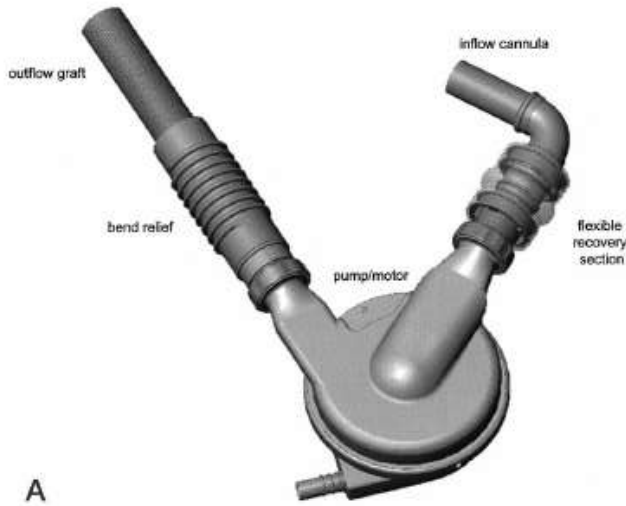
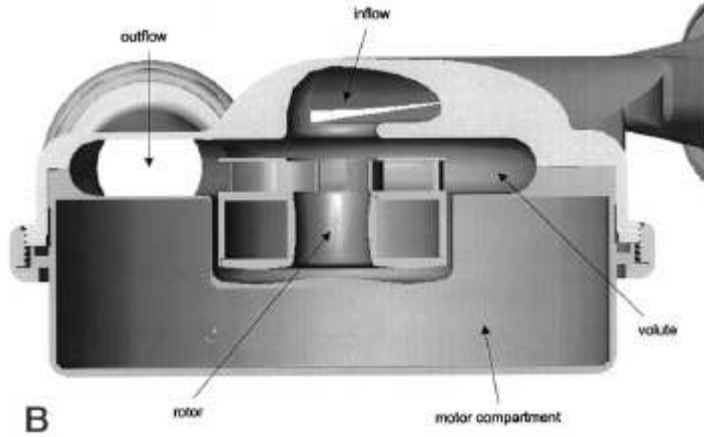


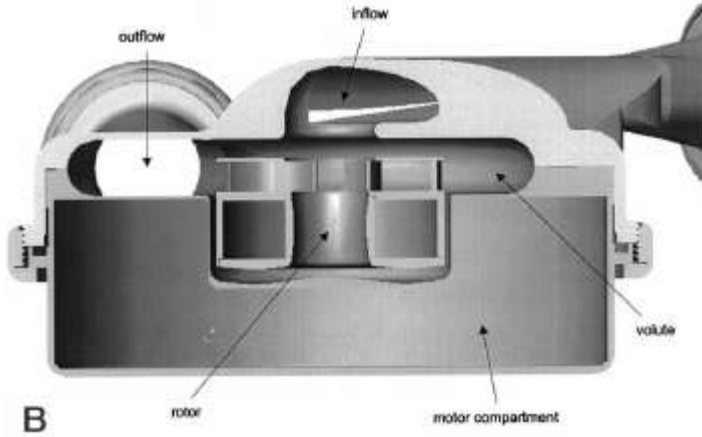
Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.

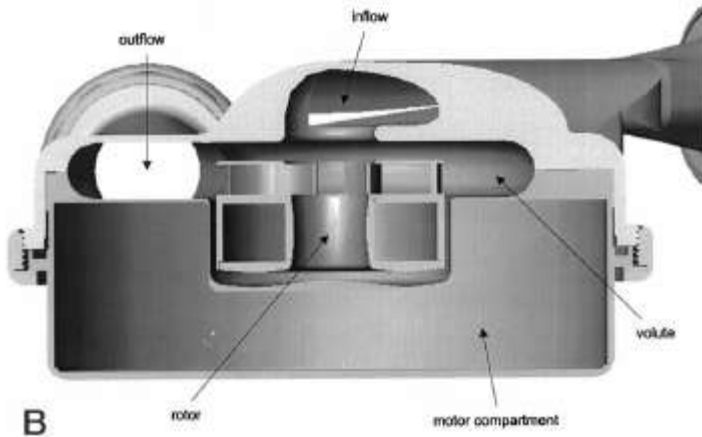
To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.

pump device" away from the heart. *Id.* at 403.

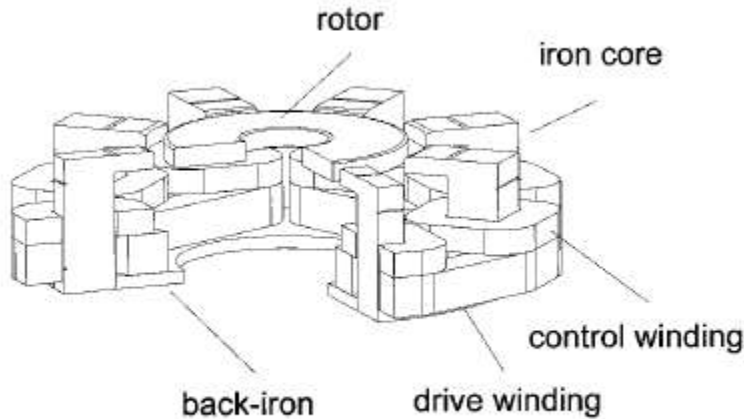
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[1b] an inflow tube defining a blood inflow path aligned with a central axis;	<p>Bourque 2001 discloses “an inflow tube defining a blood inflow path aligned with a central axis” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at 401 ABT-MIR-00000024 The HeartMate III pump...comprises an upper housing that includes the inflow and outflow channels and the upper half of the volute;...an inflow subassembly that includes a left ventricular (LV) cannula and a section that partially decouples the position and motion of the heart from the pump and facilitates pump recovery at explant.</p> <p>Bourque 2001 at fig. 1A</p> 	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a suction end of an inflow tube.</p> <p>Moreover, Defendants do not identify an “inflow tube”—as explained below, Bourque 2001 does not disclose or suggest an inflow tube meeting the recitations of this claim.</p> <p>Further, Defendants do not specifically identify a central axis, and thus there is no indication of an alignment between a blood inflow path and a central axis. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

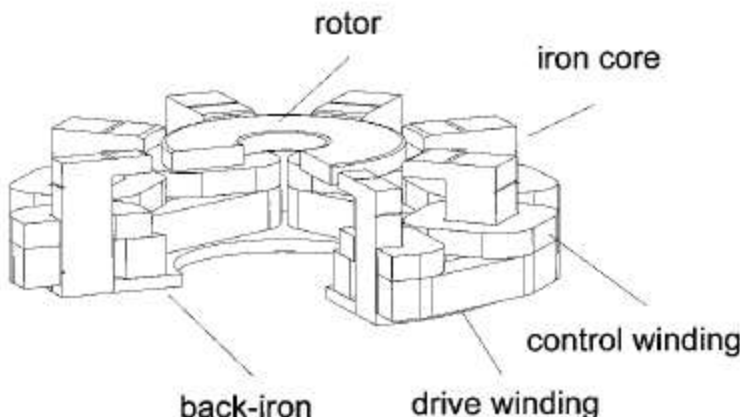
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1B</p>  <p>The diagram is a cross-sectional view of a medical device, labeled 'B'. It shows a central rotor within a housing. An inflow port is at the top, and an outflow port is on the left. A motor compartment is at the bottom, and a valve is on the right. Arrows indicate the flow of fluid from the inflow port, through the rotor, and out the outflow port. The rotor is shown in a central position, and the motor compartment is shown below it.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[1c] a magnetically driven rotor aligned with the central axis	<p>Bourque 2001 discloses “a magnetically driven rotor aligned with the central axis” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a central axis. Accordingly, there is no indication that a magnetically driven rotor is aligned with a</p>

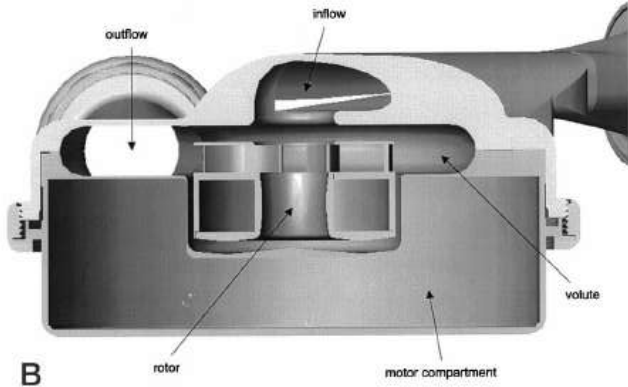
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1B</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	<p>central axis. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>
	[1d] and that [magnetically driven rotor] is rotatable about the central axis	<p>Bourque 2001 discloses “and that [magnetically driven rotor] is rotatable about the central axis within a surrounding rotor housing to drive blood flowing from the inflow tube toward the magnetically driven rotor,” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a central axis or a flow of blood from an inflow tube, and does not</p>

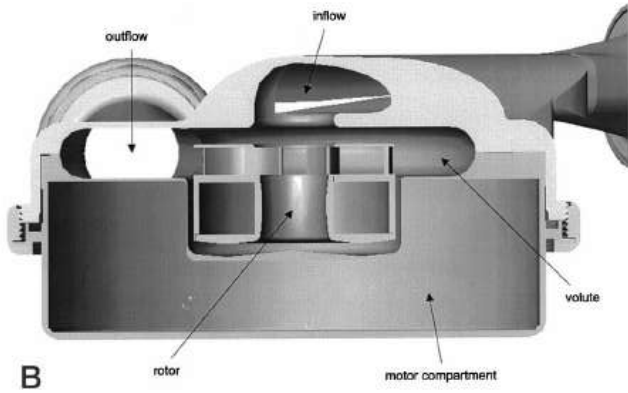
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	within a surrounding rotor housing to drive blood flowing from the inflow tube toward the magnetically driven rotor,	<p>Bourque 2001 at page 401 ABT-MIR-00000024 The HeartMate III pump...comprises...a lower housing that includes the lower half of the volute and a cavity for the rotor, in which the motor is enclosed.</p> <p>Bourque 2001 at fig. 1B</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	specifically identify any acting on the flowing blood by the rotor. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

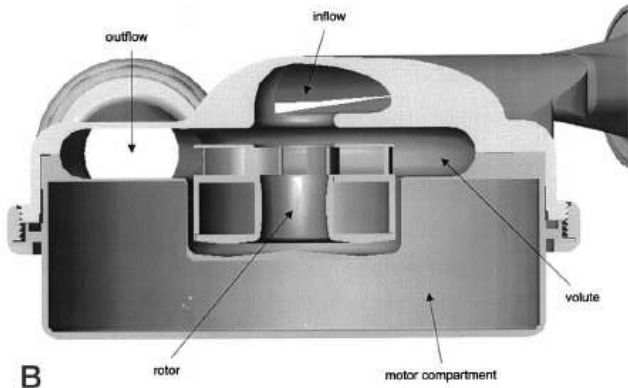
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[1e] the magnetically driven rotor being rigidly coupled to a first magnetic device	<p>Bourque 2001 discloses “the magnetically driven rotor being rigidly coupled to a first magnetic device” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as show in Figure 4.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 a rotor that includes an impeller and passively magnetic elements;</p>	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a first magnetic device, and does not specifically identify a rigid coupling. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

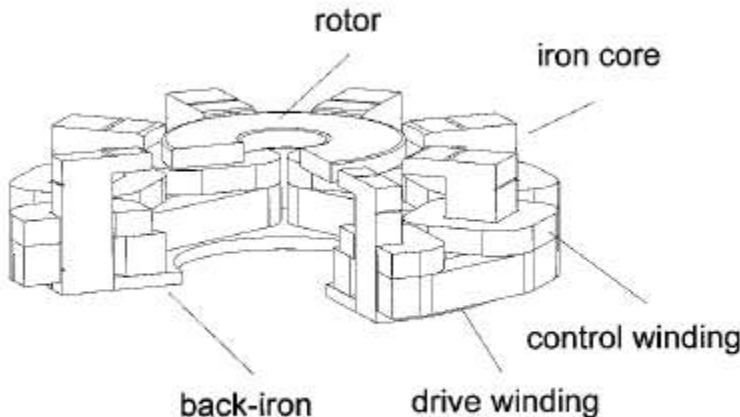
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[1f] and [the magnetically driven rotor]	Bourque 2001 discloses "and [the magnetically driven rotor] axially adjacent to a first magnetic device" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not

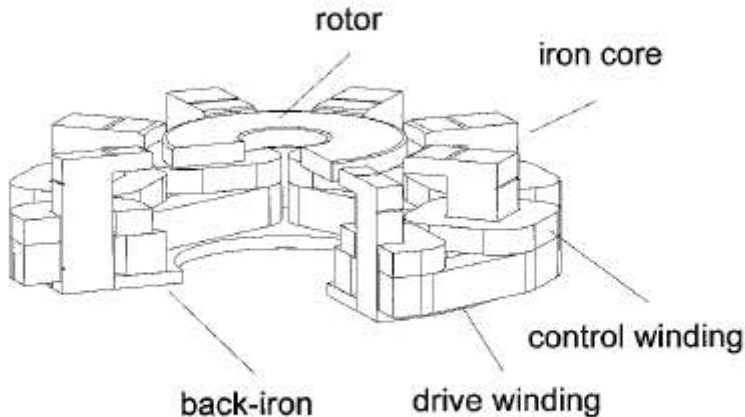
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	axially adjacent to a first magnetic device	<p>Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p>	<p>specifically identify a first magnetic device, and thus does not specifically identify an axially adjacent position of a first magnetic device. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

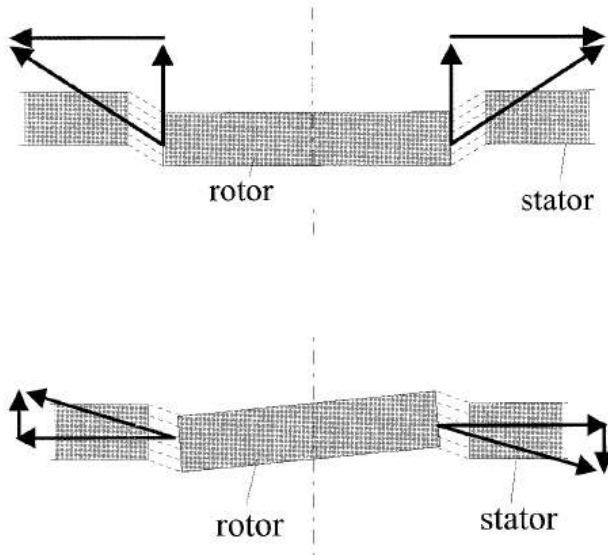
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1B</p>  <p>The diagram is a cross-sectional view of a medical device, likely a pump. It features a central rotor within a motor compartment. An inflow port is at the top, and an outflow port is on the left. A volute is shown on the right side. The entire assembly is housed within a larger structure. The label 'B' is at the bottom left of the diagram.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[1g] [the first magnetic device is] within the surrounding rotor housing	<p>Bourque 2001 discloses “[the first magnetic device is] within the surrounding rotor housing” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a first magnetic device, and thus does not specifically identify a first magnetic device within the surrounding rotor housing.</p>

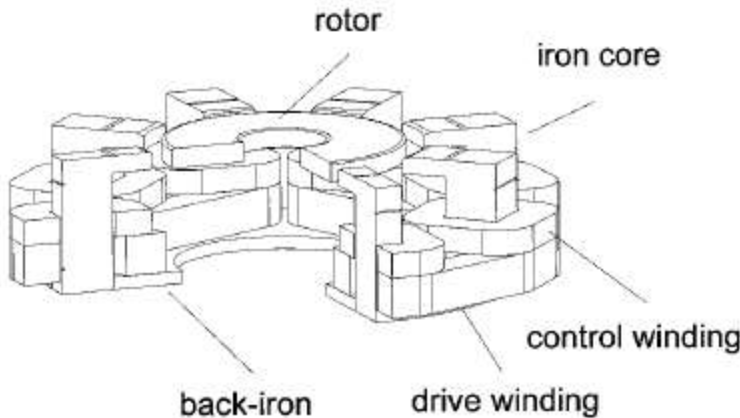
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>The HeartMate III motor includes drive and levitation in a single magnetic structure as show in Figure 4.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 The HeartMate III pump...comprises an <i>upper housing</i> that includes the inflow and outflow channels and the upper half of the volute; a <i>lower housing</i> that includes the lower half of the volute and a cavity for the rotor, in which the motor is enclosed; a <i>rotor</i> that includes an impeller and passively magnetic elements...</p> <p>Bourque 2001 at figs. 1B</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior</p>	<p>Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

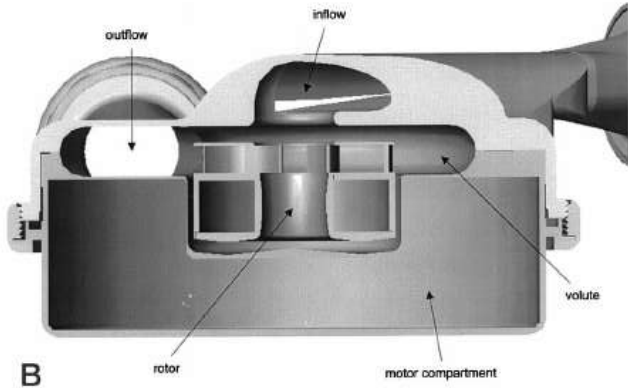
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	
	[1h] a second magnetic device axially aligned with the central axis	<p>Bourque 2001 discloses “a second magnetic device axially aligned with the central axis” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at fig. 4</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not identify the claimed central axis, does not specifically identify a second magnetic device, and thus does not specifically identify an axially aligned position of a second magnetic device with respect to a central axis as recited in the claim.</p>

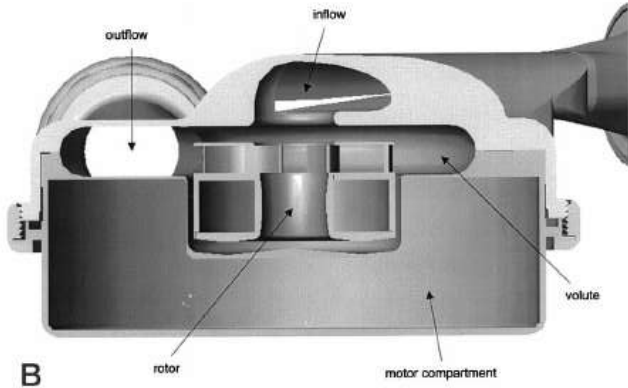
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[1i] and [the second magnetic device is] positioned to	Bourque 2001 discloses "and [the second magnetic device is] positioned to magnetically drive rotation of the magnetically driven rotor via a magneto coupling with the first magnetic device" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a second magnetic device, does not

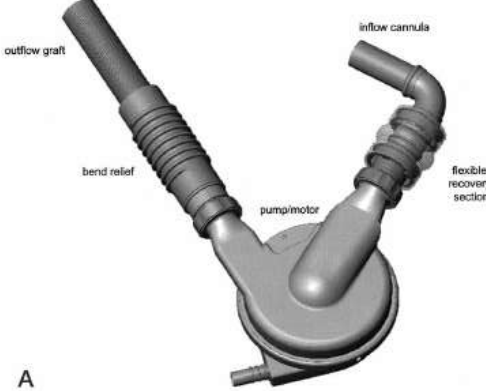
U.S. Patent No. 11,572,879			
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	magnetically drive rotation of the magnetically driven rotor via a magneto coupling with the first magnetic device	<p>Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p>	<p>specifically identify a first magnetic device, and thus does not specifically identify a position for a second magnetic device to magnetically drive rotation of the magnetically driven rotor via a magneto coupling with the first magnetic device. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

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		<p>Bourque 2001 at fig. 5</p>  <p>Figure 5. Passive magnetic levitation. Above, Restoration force when axially displaced. Below, Restoration force when tilted.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[1j] while both the magnetically driven rotor and first magnetic device are entirely spaced apart from the surrounding rotor housing by a gap sized for passage of the blood during rotation of the magnetically driven rotor; and	<p>Bourque 2001 discloses “while both the magnetically driven rotor and first magnetic device are entirely spaced apart from the surrounding rotor housing by a gap sized for passage of the blood during rotation of the magnetically driven rotor; and” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically</p>	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify the first magnetic device as discussed above, does not specifically identify any gap sizing, and thus does not specifically identify the first magnetic device being spaced apart by “a gap sized for passage of the blood.” Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

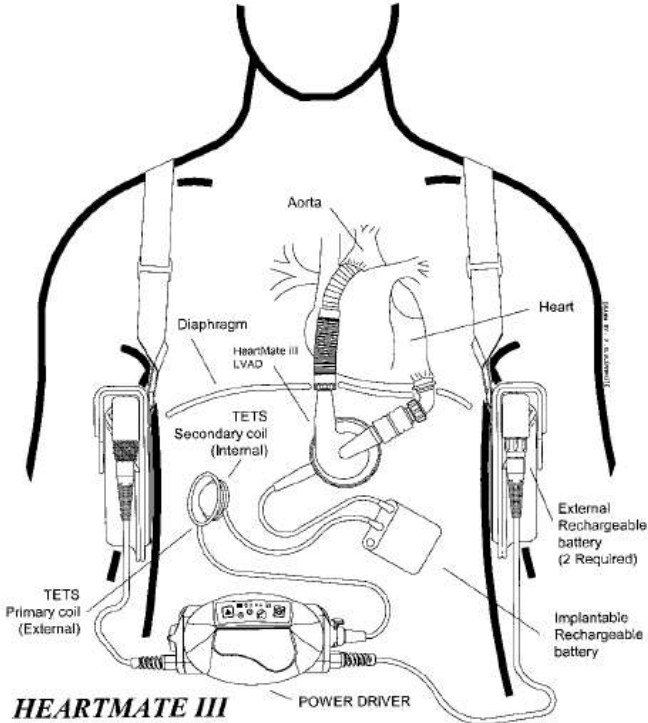
U.S. Patent No. 11,572,879			
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		<p>levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at page 401 ABT-MIR-00000024 The rotor is magnetically suspended, eliminating contact between moving parts and consequently extending wear life indefinitely. It is anticipated that this design will profoundly increase reliability.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	

U.S. Patent No. 11,572,879			
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	[1k] a blood outflow port positioned radially adjacent the magnetically driven rotor such that the blood driven by the magnetically driven rotor exits the surrounding rotor housing in a direction substantially perpendicular to the central axis,	<p>Bourque 2001 discloses “a blood outflow port positioned radially adjacent the magnetically driven rotor such that the blood driven by the magnetically driven rotor exits the surrounding rotor housing in a direction substantially perpendicular to the central axis” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>The diagram is a cross-sectional view of a medical device, labeled 'B' at the bottom left. It shows a central rotor with multiple vanes, housed within a larger structure. An 'inflow' port is at the top, and an 'outflow' port is on the left. A 'motor compartment' is at the bottom, and a 'volute' is on the right. Arrows indicate the flow of blood from the inflow, through the rotor, and out the outflow port.</p>	No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a direction of blood exiting the housing or a central axis—as a result, there is no indication that the “blood driven by the magnetically driven rotor exits the surrounding rotor housing in a direction substantially perpendicular to the central axis.” Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1A</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11] wherein the magneto coupling orients the magnetically driven rotor so that the magnetically	Bourque 2001 discloses “wherein the magneto coupling orients the magnetically driven rotor so that the magnetically driven rotor remains adjacent to and spaced apart from the surrounding rotor housing by the blood flowing from the inflow tube and to the blood outflow port; and” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify the first or second magnetic devices or the magneto coupling as discussed above and thus does not specifically identify the

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	driven rotor remains adjacent to and spaced apart from the surrounding rotor housing by the blood flowing from the inflow tube and to the blood outflow port; and	<p>Bourque 2001 at page 401 ABT-MIR-00000024 The rotor is magnetically suspended, eliminating contact between moving parts and consequently extending wear life indefinitely. It is anticipated that this design will profoundly increase reliability.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 By creating a similar opening in the lower half of the rotor, a second backflow path underneath the rotor results, eliminating what would have been an accumulation of stagnant blood there, and relieving the upward thrust load on the rotor. However, both of these backflows consume hydraulic power without contributing to physiologic perfusion. Thus, the clearances above and below the rotor were chosen to balance reduced hydraulic efficiency with sufficient washing of blood contacting surfaces. Backflow clearances were further constrained by the stiffness of the magnetic suspension (passive in the axial direction, actively controlled in the radial direction), which describes the levitation system's capacity to counteract imposed deviations of rotor position; the gaps permit up to 7X gravitational loads in any direction without contact between the rotor and housing.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024</p>	<p>magneto coupling orienting the rotor, and does not identify the inflow tube or blood outflow port as discussed above and thus also does not specifically identify the blood flowing from the inflow tube and to the blood outflow port as recited in the claim. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>The pump components were designed to achieve the desired flow paths, accommodate the motor, and provide convenient reliable connections in the simplest, most cost effective way.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[1m] an external control unit configured to regulate operation of the second magnetic device,	<p>Bourque 2001 discloses "an external control unit configured to regulate operation of the second magnetic device," at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 403 ABT-MIR-00000024 The electronics for power and control of the LVAD and for data acquisition resided on a shelf and alongside the cages containing the calves. The animals were continuously monitored for general welfare, and certain parameters such as arterial pressure, pump and pulmonary artery volume flow rates, pump speed, and blood chemistry (including plasma free hemoglobin) were periodically recorded. In two animals, measurement of pressure head throughout the duration of the studies were made with flocked carotid lines and fluid filled LV catheters.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a second magnetic device and does not specifically identify any regulation of the second magnetic device by the shelf mounted electronics. Defendants' argument that elements can be found in a different reference fails to comply with the relevant rules because Defendants do not identify with specificity where such elements can be found in that different reference. Miracor does not further</p>

		<p>Bourque 2001 at fig. 3.</p>  <p>HEARTMATE III</p> <p>Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	<p>respond to Defendants' arguments regarding combination with other references as such a response would fall outside of LPR 2.5. Miracor's compliance with the rules does not indicate any agreement, acquiescence or waiver with respect to Defendants' arguments regarding combinations with other references. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>
[1n] the external		Bourque 2001 discloses "the external control unit being positionable exterior to a body when the heart assist pump device is delivered to the	No. Defendants' bare citation in support fails to comply with

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	control unit being positionable exterior to a body when the heart assist pump device is delivered to the heart,	<p>heart,” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 403 ABT-MIR-00000024</p> <p>The electronics for power and control of the LVAD and for data acquisition resided on a shelf and alongside the cages containing the calves. The animals were continuously monitored for general welfare, and certain parameters such as arterial pressure, pump and pulmonary artery volume flow rates, pump speed, and blood chemistry (including plasma free hemoglobin) were periodically recorded. In two animals, measurement of pressure head throughout the duration of the studies were made with flocked carotid lines and fluid filled LV catheters.</p>	<p>LPR 2.3(b)(3) and does not specifically identify the heart assist pump device being delivered to the heart as explained in element 1a above. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

Bourque 2001 at fig. 3.

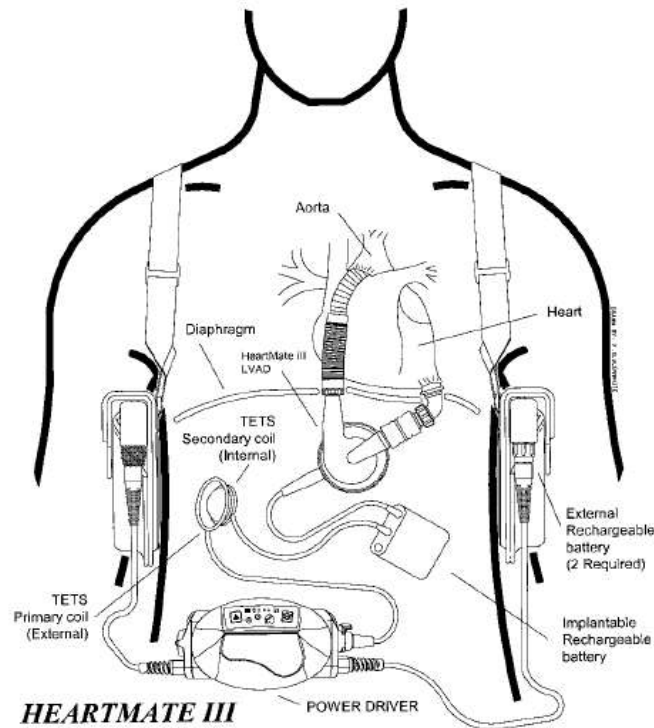
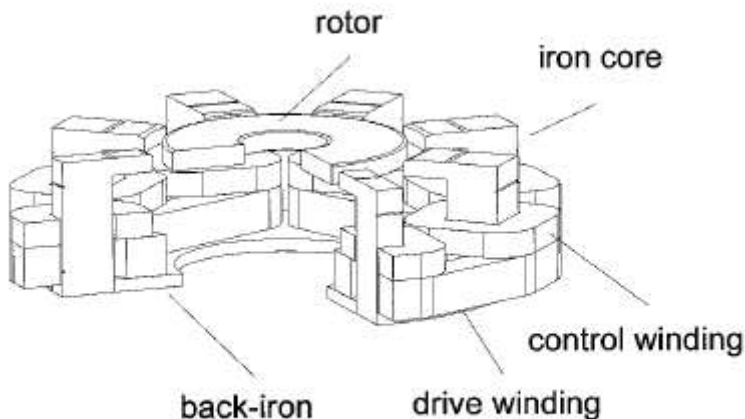
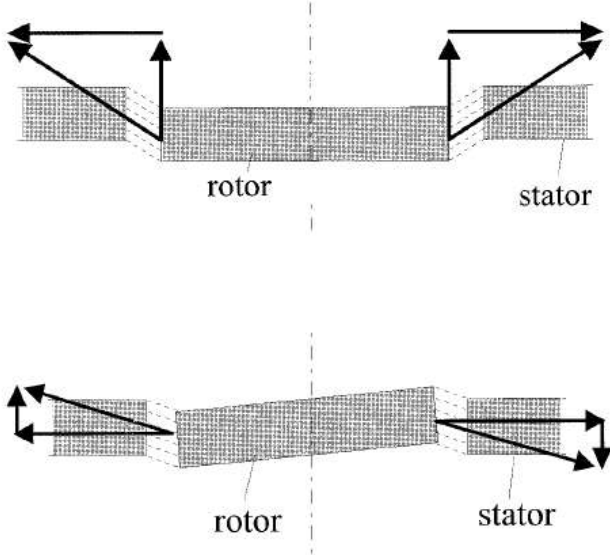


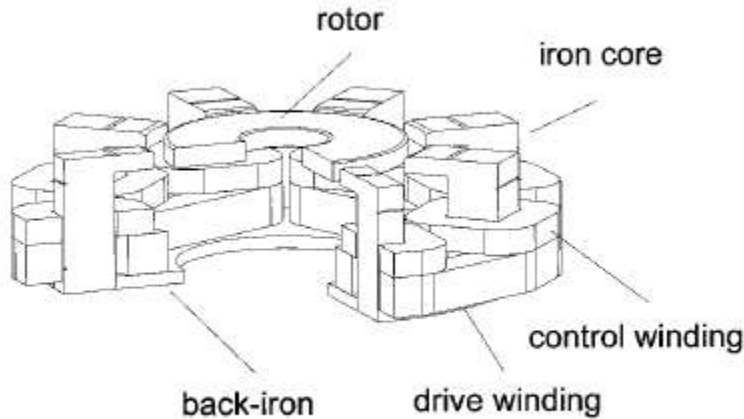
Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.

To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[1o] wherein the external control unit is connectable to the heart assist pump device for operating the second magnetic device to thereby magnetically drive the rotation of the magnetically driven rotor via the magneto coupling with the first magnetic device.	<p>Bourque 2001 discloses “wherein the external control unit is connectable to the heart assist pump device for operating the second magnetic device to thereby magnetically drive the rotation of the magnetically driven rotor via the magneto coupling with the first magnetic device.” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024</p>	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a first or second magnetic device or magneto coupling as discussed above, and does not specifically identify any operation of the second magnetic device by the shelf mounted electronics. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p> <p>Bourque 2001 at fig. 5</p>  <p>Figure 5. Passive magnetic levitation. Above, Restoration force when axially displaced. Below, Restoration force when tilted.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it</p>	

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	
2	The system of claim 1, wherein the magnetically driven rotor comprises: a guide surface to produce centrifugal flow components.	<p>Bourque 2001 discloses "The system of claim 1, wherein the magnetically driven rotor comprises: a guide surface to produce centrifugal flow components." at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 A long-term, compact left ventricular assist device (LVAD), the HeartMate III, has been designed and fabricated, featuring a centrifugal pump with a magnetically levitated rotor.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 An opening in the shroud (<i>i.e.</i>, the cover across the top of the blades on the rotor) permits fluid leaving the inflow conduit to enter the impeller. This results in a backflow path from the trailing edges of the blades (where the pressure is relatively high), over the shroud, and back to the leading edges of the blades. By creating a similar opening in the lower half of the rotor, a second backflow path underneath the rotor results, eliminating what would have been an accumulation of stagnant blood there, and relieving the upward thrust load on the rotor.</p>	Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify any centrifugal flow components or any guide surfaces that produce centrifugal flow components. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
11	[PRE] A system for assisting blood	Bourque 2001 discloses "A system for assisting blood circulation of a heart, the system comprising" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement	Yes, subject to the limitations stated at the top of this document and the comments made throughout. Miracor may

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	circulation of a heart, the system comprising:	<p>Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at Abstract ABT-MIR-00000024 A long-term, compact left ventricular assist device (LVAD), the HeartMate III, has been designed and fabricated, featuring a centrifugal pump with a magnetically levitate rotor.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 The advent of the left ventricular assist device (LVAD) has provided significant benefit to certain [congestive heart failure] patients since becoming clinically available.</p> <p>Bourque 2001 at page 404 ABT-MIR-00000024 It was a fundamental goal of the HeartMate III mechanical design to achieve optimal pumping performance and to enclose a sophisticated motor in the simplest possible way, this being the best means of achieving success.</p>	modify its response to this claim element subject to further explanation or definition by Defendants.

Bourque 2001 at fig. 3.

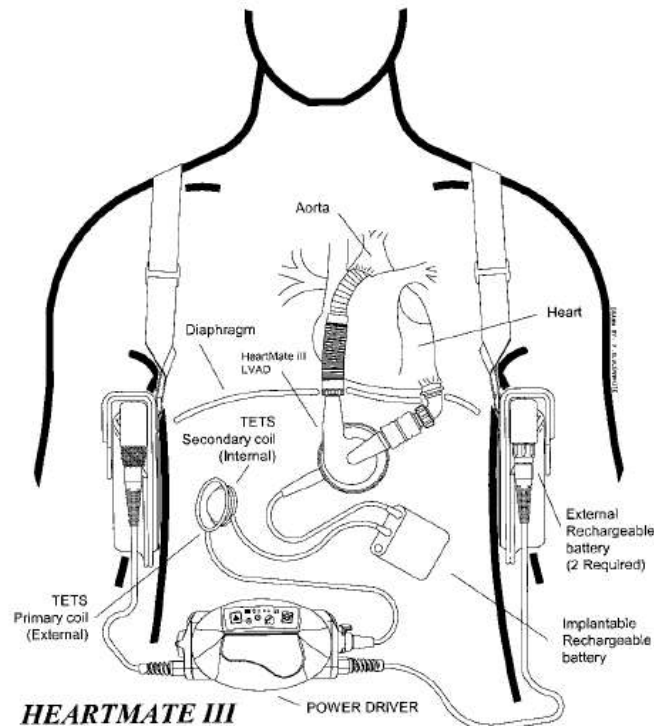


Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.

To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[11a] a heart assist pump device deliverable to the heart and comprising:	<p>Bourque 2001 discloses “a heart assist pump device deliverable to the heart and comprising” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at Abstract ABT-MIR-00000024 A long-term, compact left ventricular assist device (LVAD), the HeartMate III, has been designed and fabricated, featuring a centrifugal pump with a magnetically levitate rotor.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 The advent of the left ventricular assist device (LVAD) has provided significant benefit to certain [congestive heart failure] patients since becoming clinically available.</p> <p>Bourque 2001 at page 404 ABT-MIR-00000024 It was a fundamental goal of the HeartMate III mechanical design to achieve optimal pumping performance and to enclose a sophisticated motor in the simplest possible way, this being the best means of achieving success.</p>	<p>No. Bourque 2001 does not disclose or suggest a heart assist pump device that is deliverable or delivered to the heart. Instead, the pump is located in the “least obtrusive position,” spaced apart from the heart and connected to the heart by what Bourque 2001 calls an “inflow cannula” which does not meet the recitations of the claimed “inflow tube” of the claimed “heart assist pump device.” Bourque 2001 at 402.</p> <p>Bourque 2001’s “inflow cannula” is part of what Bourque 2001 calls an “inflow subassembly” comprising “a section that partially decouples the position ... of the heart from the pump and facilitates pump recovery at explant.” <i>Id.</i> at 402. In vivo bovine testing involved similar cannulation that spaces the “heart assist pump device” away from the heart. <i>Id.</i> at 403.</p>

Bourque 2001 at fig. 3.

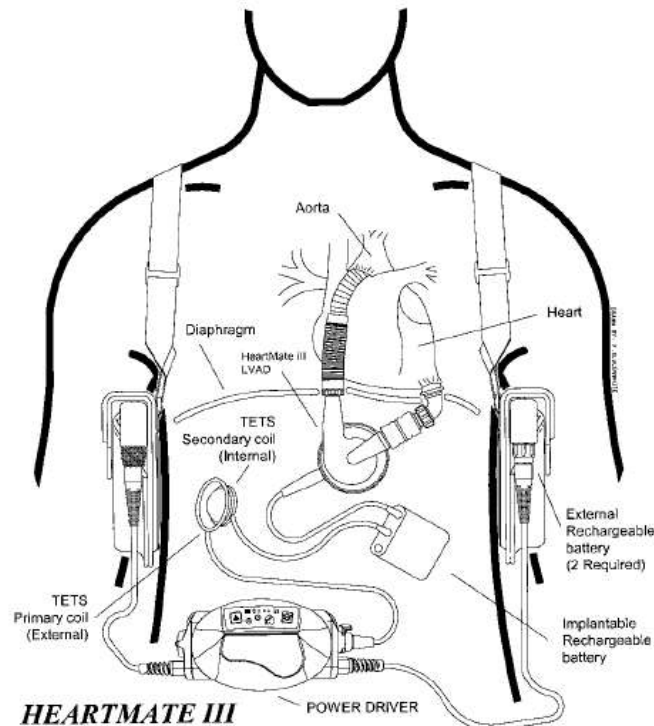
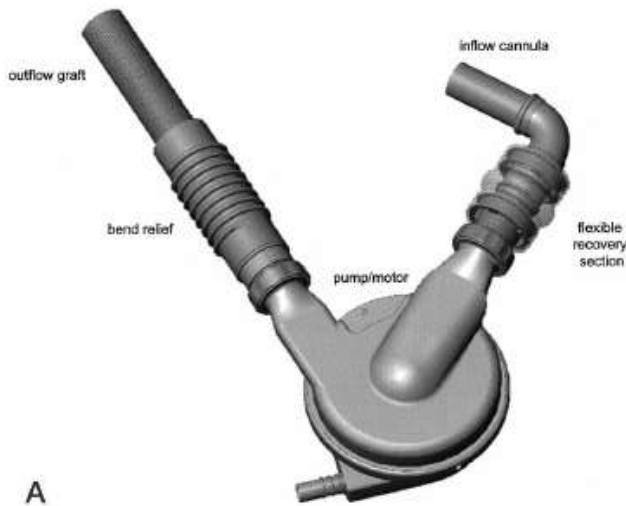
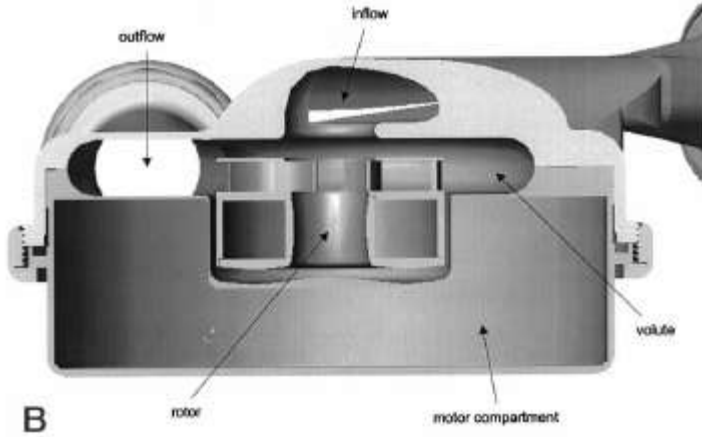
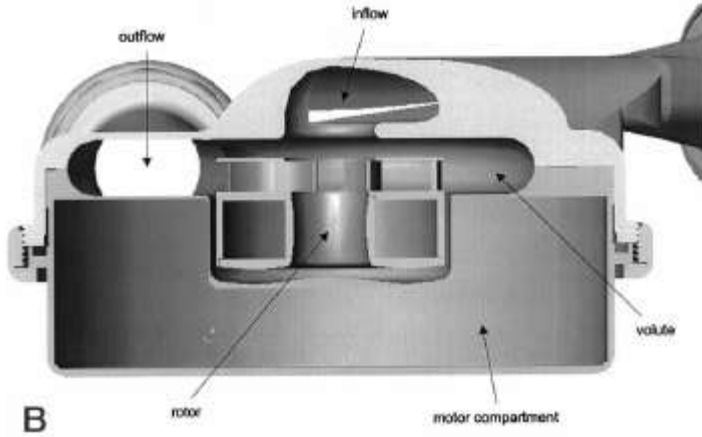


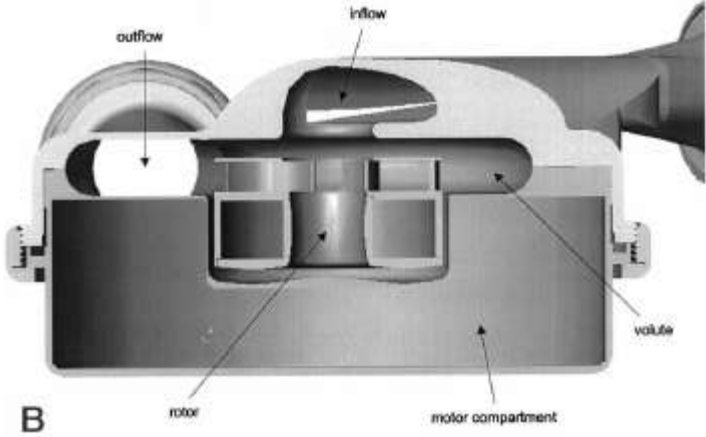
Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.

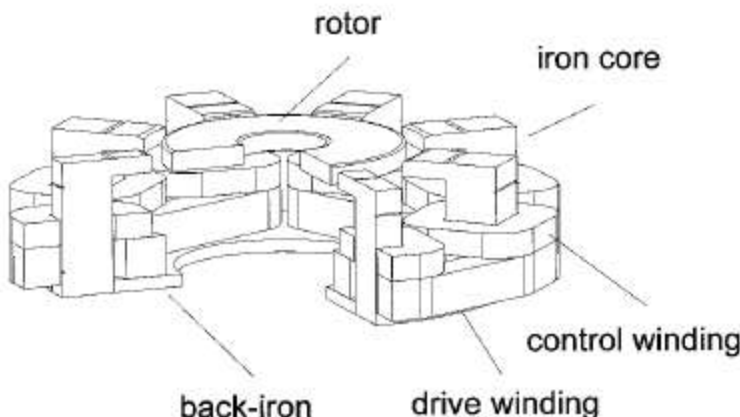
To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.

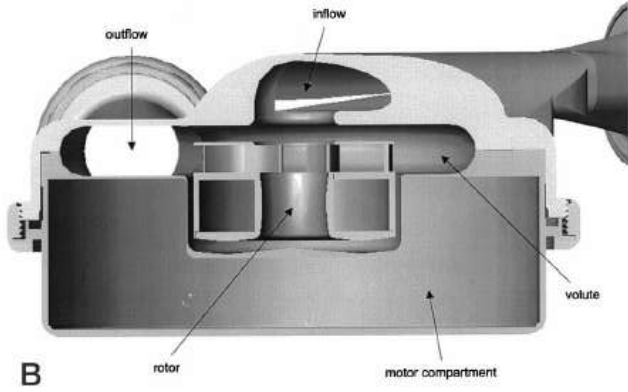
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[11b] an inflow tube defining a blood inflow path along an inflow axis and being insertable into a left ventricle;	<p>Bourque 2001 discloses “an inflow tube defining a blood inflow path along an inflow axis and being insertable into a left ventricle;” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at 401 ABT-MIR-00000024 The HeartMate III pump...comprises an upper housing that includes the inflow and outflow channels and the upper half of the volute;...an inflow subassembly that includes a left ventricular (LV) cannula and a section that partially decouples the position and motion of the heart from the pump and facilitates pump recovery at explant.</p> <p>Bourque 2001 at fig. 1A</p>  <p>Diagram A illustrates the HeartMate III pump assembly. It features a central pump/motor unit. An inflow cannula is connected to the top of the pump, with a bend relief section. An outflow graft is connected to the side of the pump, also featuring a bend relief section. A flexible recovery section is attached to the bottom of the pump. The diagram is labeled 'A' at the bottom left.</p>	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify an inflow tube or an inflow axis, nor does it specifically identify the insertion of such an inflow tube into a ventricle of the heart. Moreover, Defendants do not identify an “inflow tube”—as explained below, Bourque 2001 does not disclose or suggest an inflow tube meeting the recitations of this claim. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

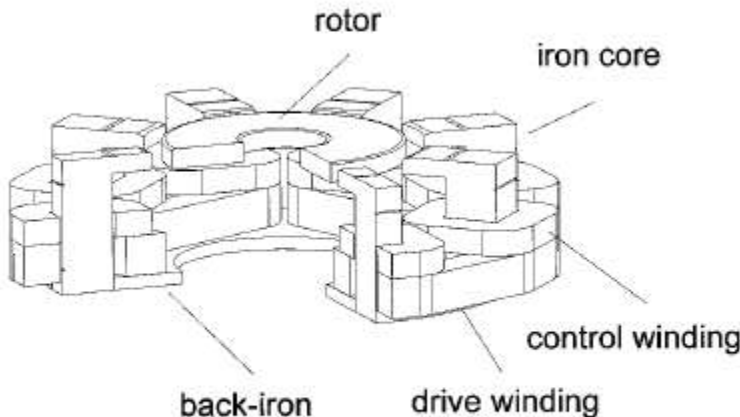
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1B</p>  <p>The diagram shows a cross-section of a medical device. An inflow tube is at the top, leading into a chamber. An outflow tube is on the left. A rotor is in the center, and a motor compartment is at the bottom. A valve is on the right. The label 'B' is at the bottom left.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11c] one or more walls at least partially defining a chamber to receive blood	<p>Bourque 2001 discloses “one or more walls at least partially defining a chamber to receive blood from the inflow tube;” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify the recited wall or walls and does not specifically identify a chamber. For the reasons discussed above,</p>

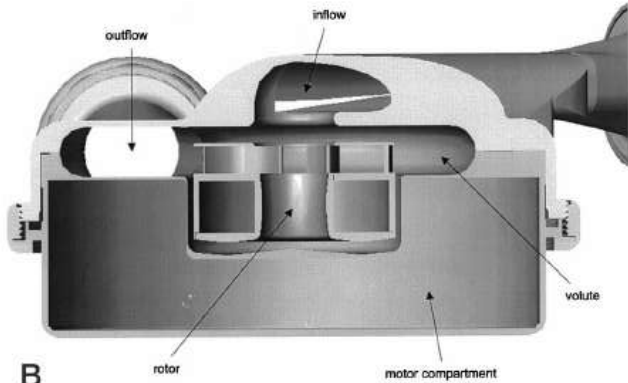
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	from the inflow tube;	<p>Bourque 2001 at fig. 1B</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	Defendants also fail to specifically identify an inflow tube. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.
	[11d] a magnetically driven rotor axially aligned with the inflow axis and	<p>Bourque 2001 discloses “a magnetically driven rotor axially aligned with the inflow axis and” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p>	No. Bourque 2001 does not disclose a magnetically driven rotor axially aligned with the inflow axis. Defendants do not identify a rotor axis, nor do Defendants identify an inflow axis or an inflow tube direction.

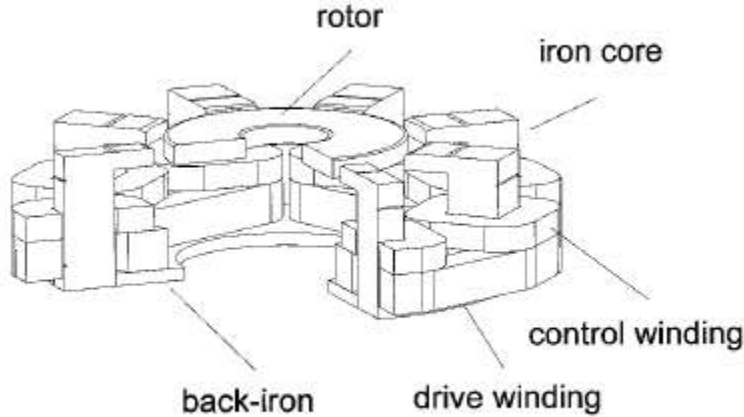
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at page 402 ABT-MIR-00000024 To orient the pump in the least obtrusive position...it was decided that the rotational axis of the pump's rotor should be perpendicular to the body's long axis.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	<p>Miracor notes that, in the figures presented, the rotor axis appears to be orthogonal to what Bourque 2001 calls the "inflow cannula." Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>
	[11e] [the magnetically	Bourque 2001 discloses "[the magnetically driven rotor] being rigidly coupled [to a first magnetic device] and" at least under the apparent	No. Defendants' bare citation in support fails to comply with

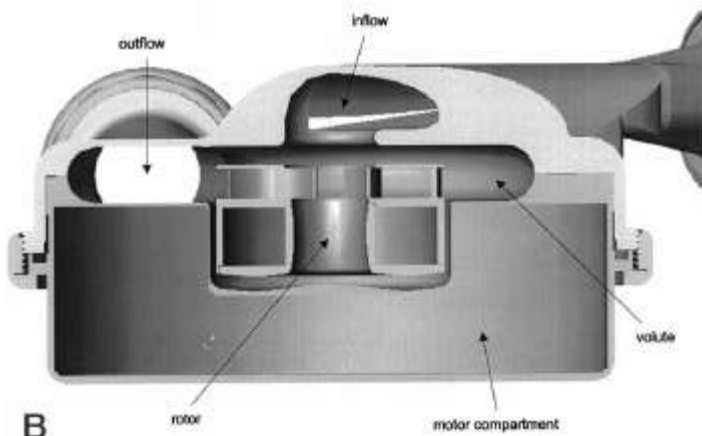
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	driven rotor] being rigidly coupled [to a first magnetic device] and	<p>construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as show in Figure 4.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 a rotor that includes an impeller and passively magnetic elements;</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p>	<p>LPR 2.3(b)(3), does not specifically identify a first magnetic device, and does not specifically identify a rigid coupling. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

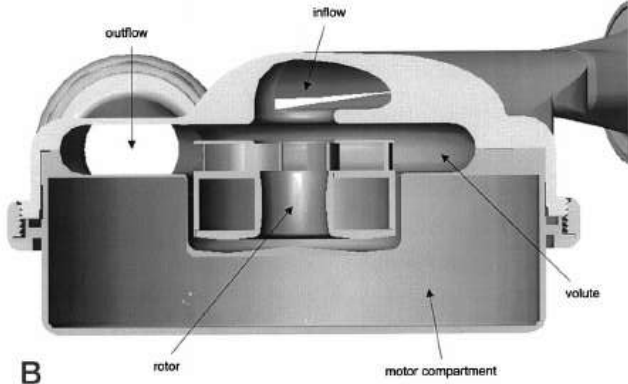
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11f] [the magnetically driven rotor is] axially adjacent to a first magnetic device	<p>Bourque 2001 discloses “[the magnetically driven rotor is] axially adjacent to a first magnetic device” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at fig. 4</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a first magnetic device, and thus does not specifically identify an axially adjacent position of a first magnetic device. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

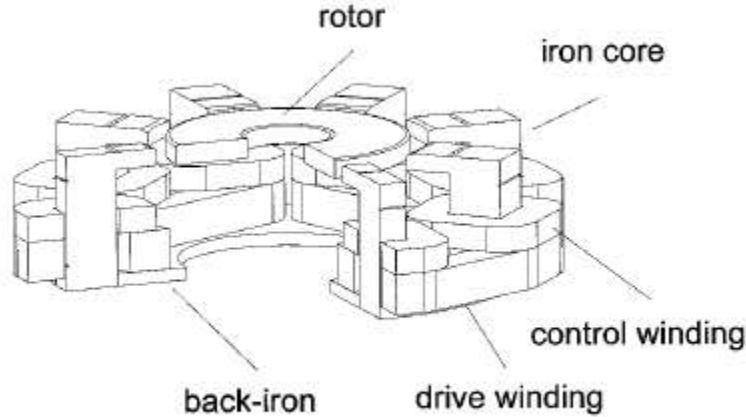
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11g] that [the first magnetic device] is axially	Bourque 2001 discloses "that [the first magnetic device] is axially aligned with the inflow axis" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.	No. Bourque 2001 does not disclose a first magnetic device or an axis of a first magnetic device. Defendants do not identify an inflow axis or an

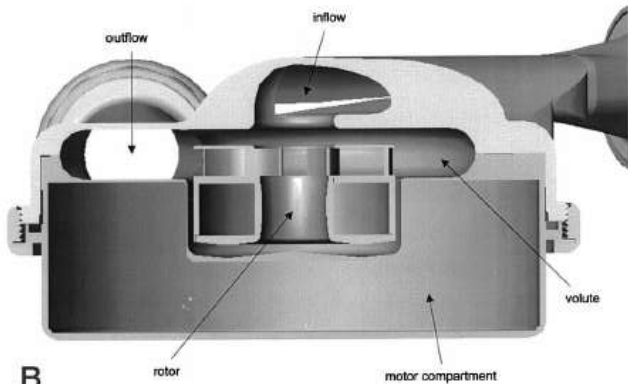
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	aligned with the inflow axis	<p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at fig. 4</p>	<p>inflow tube direction. Miracor notes that, in the figures presented, the rotor axis appears to be orthogonal to what Bourque 2001 calls the “inflow cannula.” Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

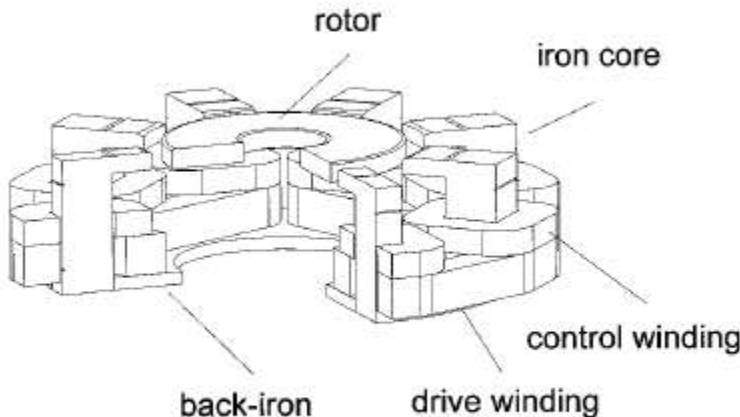
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11h] the magnetically driven rotor and first magnetic	Bourque 2001 discloses "the magnetically driven rotor and first magnetic device being rotatable about an axis of rotation aligned with the inflow axis to drive the blood flowing from the inflow tube;" at least under the apparent construction and scope of the claims as set forth in Miracor's	No. Bourque 2001 does not disclose a first magnetic device, an axis of rotation, an inflow axis or an inflow tube direction. Defendants thus do not identify

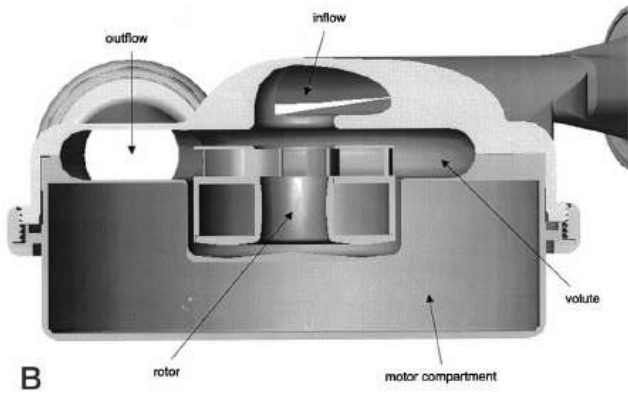
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	device being rotatable about an axis of rotation aligned with the inflow axis to drive the blood flowing from the inflow tube;	<p>Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at page 402 ABT-MIR-00000024 To orient the pump in the least obtrusive position...it was decided that the rotational axis of the pump's rotor should be perpendicular to the body's long axis.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior</p>	<p>an axis of rotation axially aligned with an inflow axis. Miracor notes that, in the figures presented, the rotor axis appears to be orthogonal to what Bourque 2001 calls the “inflow cannula.” Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

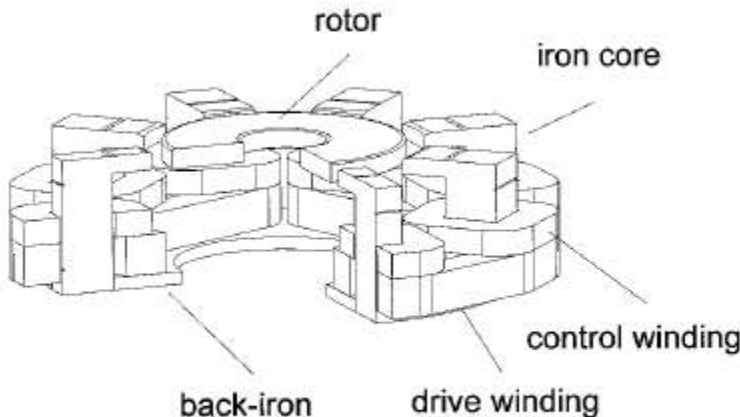
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	
	[11i] a magnetic drive system comprising a second magnetic device axially aligned with the inflow axis and	<p>Bourque 2001 discloses “a magnetic drive system comprising a second magnetic device axially aligned with the inflow axis and” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at fig. 4</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a second magnetic device, does not identify any axis of a second magnetic device, does not identify an inflow axis, and thus does not specifically identify an axially aligned position of a second magnetic device with respect to an inflow axis as recited in the claim. Miracor notes that the portion of Bourque 2001's Fig. 1B labeled as “inflow” appears to be orthogonal to Bourque 2001's motor. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

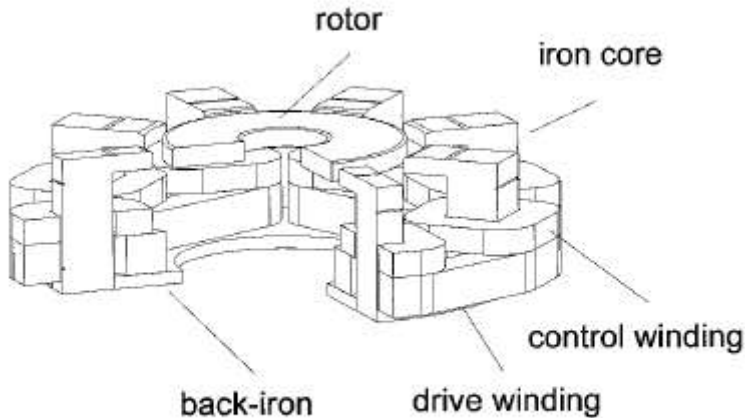
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11j] [a second magnetic device] spaced apart	Bourque 2001 discloses “[a second magnetic device] spaced apart from the magnetically driven rotor such that a wall of the one or more walls defining the chamber is positioned between the magnetically driven rotor and the second magnetic device” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not identify a second magnetic device, a chamber, or a wall of a

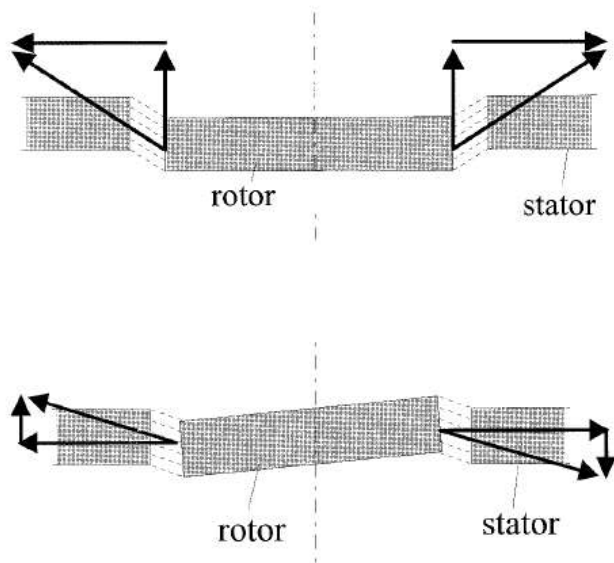
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	from the magnetically driven rotor such that a wall of the one or more walls defining the chamber is positioned between the magnetically driven rotor and the second magnetic device	<p>Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at fig. 4</p>	<p>chamber. Defendants thus fail to specifically disclose the relative positions of a wall, a magnetically driven rotor, and a second magnetic device. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

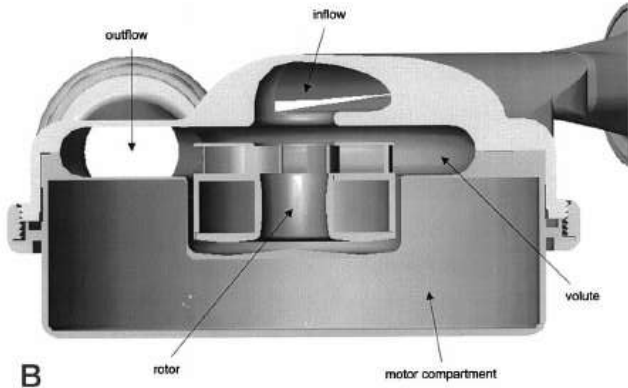
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p>	
		<p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references (e.g., Schob '618 Ex. D-5) identified in the cover pleading of Defendants' Initial Invalidity Contentions. For example, a person of ordinary skill in the art would know that if a magnet comes into contact with blood, it can adversely affect the blood so as to become toxic or lethal, or cause corrosion, and that therefore the magnet must be sealed from the blood. Further, a person of ordinary skill in the art would have been motivated to combine Bourque 2001 with one or more other</p>	

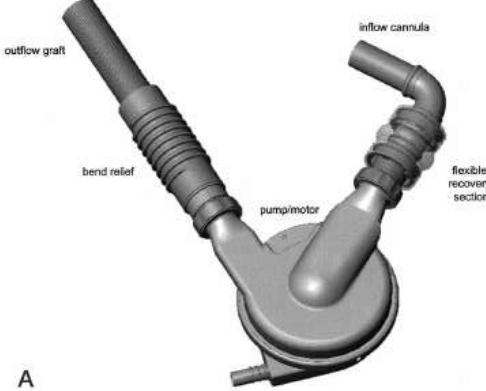
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>references identified in the cover pleading of Defendants' Initial Invalidity Contentions (e.g., Schob '618 Ex. D-5) with a reasonable expectation of success because each of these references contains familiar elements within the similar fields of endeavor to address similar known problems according to known methods which would yield predictable results.</p>	
	<p>[11k] [the second magnetic device] positioned axially closer to the first magnetic device than to the magnetically driven rotor</p>	<p>Bourque 2001 discloses “[the second magnetic device] positioned axially closer to the first magnetic device than to the magnetically driven rotor” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at fig. 4</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a second magnetic device, a first magnetic device, or relative positions of the first and second magnetic devices and a magnetically driven rotor. Accordingly, Defendants fail to disclose a second magnetic device “positioned axially closer to the first magnetic device than to the magnetically driven rotor.” Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		 <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[111] so as to [have the second magnetic device]	Bourque 2001 discloses "so as to [have the second magnetic device] magnetically drive rotation of the magnetically driven rotor relative to the one or more walls via a magneto coupling with the first magnetic device; and" at least under the apparent construction and scope of the claims as set	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a first or a second magnetic device or one

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	magnetically drive rotation of the magnetically driven rotor relative to the one or more walls via a magneto coupling with the first magnetic device; and	<p>forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p>	<p>or more walls. Accordingly, Defendants fail to identify driving “the magnetically driven rotor relative to the one or more walls via a magneto coupling with the first magnetic device.” Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

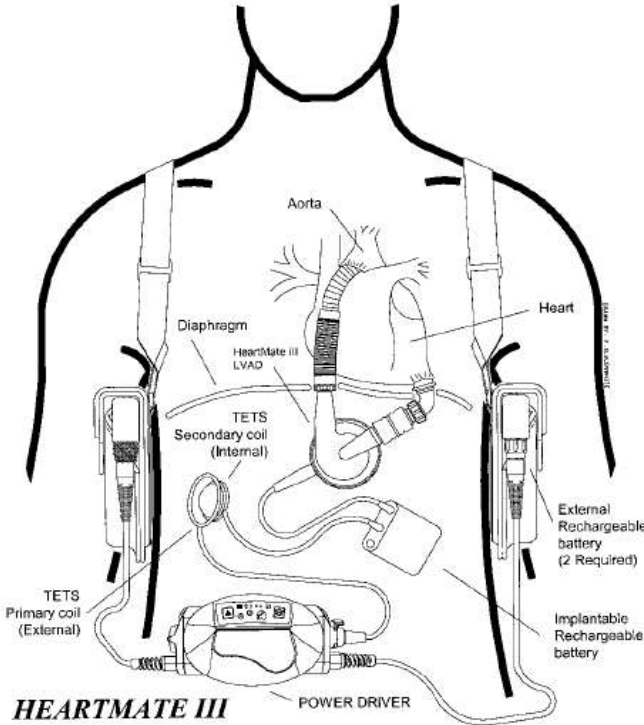
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 5</p>  <p>Figure 5. Passive magnetic levitation. Above, Restoration force when axially displaced. Below, Restoration force when tilted.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	[11m] a blood outflow port positioned such that the blood driven by the magnetically driven rotor exits the chamber in a direction substantially perpendicular to the inflow axis,	<p>Bourque 2001 discloses “a blood outflow port positioned such that the blood driven by the magnetically driven rotor exits the chamber in a direction substantially perpendicular to the inflow axis,” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p> 	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a direction of blood exiting the housing or a direction of the inflow tube or an inflow axis—as a result, there is no indication that the “blood driven by the magnetically driven rotor exits the chamber in a direction substantially perpendicular to the inflow axis.” Miracor notes that, to the extent the relevant directions can be estimated, blood exiting through the outflow appears to be flowing substantially parallel to the portion labeled as “inflow cannula” in Bourque 2001’s Fig. 1A. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

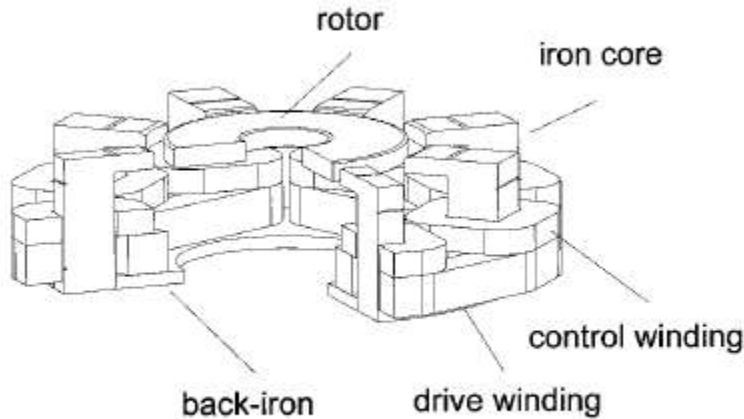
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1A</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11n] wherein the magneto coupling orients the magnetically driven rotor so that both the	<p>Bourque 2001 discloses “wherein the magneto coupling orients the magnetically driven rotor so that both the magnetically driven rotor and the first magnetic device remain spaced apart from the one or more walls by the blood in response to rotation of the magnetically driven rotor; and” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify a first magnetic device or one or more walls. Accordingly, Defendants do not identify a magnetically driven rotor and first magnetic</p>

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	magnetically driven rotor and the first magnetic device remain spaced apart from the one or more walls by the blood in response to rotation of the magnetically driven rotor; and	<p>Bourque 2001 at page 401 ABT-MIR-00000024 The rotor is magnetically suspended, eliminating contact between moving parts and consequently extending wear life indefinitely. It is anticipated that this design will profoundly increase reliability.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 By creating a similar opening in the lower half of the rotor, a second backflow path underneath the rotor results, eliminating what would have been an accumulation of stagnant blood there, and relieving the upward thrust load on the rotor. However, both of these backflows consume hydraulic power without contributing to physiologic perfusion. Thus, the clearances above and below the rotor were chosen to balance reduced hydraulic efficiency with sufficient washing of blood contacting surfaces. Backflow clearances were further constrained by the stiffness of the magnetic suspension (passive in the axial direction, actively controlled in the radial direction), which describes the levitation system's capacity to counteract imposed deviations of rotor position; the gaps permit up to 7X gravitational loads in any direction without contact between the rotor and housing.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024</p>	device "spaced apart from the one or more walls by the blood." Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

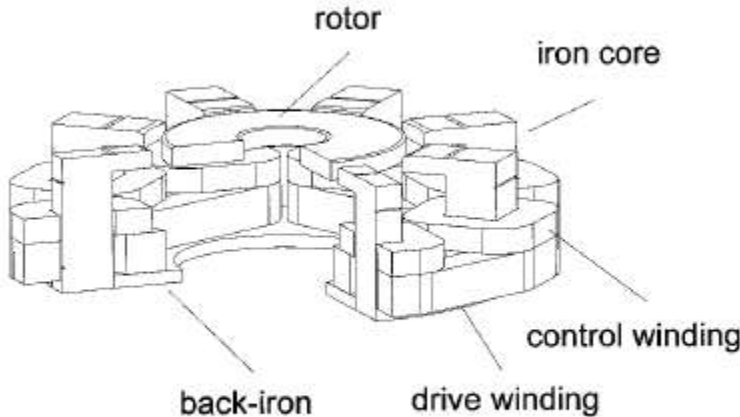
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>The pump components were designed to achieve the desired flow paths, accommodate the motor, and provide convenient reliable connections in the simplest, most cost effective way.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[11o] an external control unit configured to control operation of the second magnetic device based on a fixed value to thereby magnetically drive the rotation of the magnetically driven rotor via the	<p>Bourque 2001 discloses "an external control unit configured to control operation of the second magnetic device based on a fixed value to thereby magnetically drive the rotation of the magnetically driven rotor via the magneto coupling with the first magnetic device." at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 403 ABT-MIR-00000024 The electronics for power and control of the LVAD and for data acquisition resided on a shelf and alongside the cages containing the calves. The animals were continuously monitored for general welfare, and certain parameters such as arterial pressure, pump and pulmonary artery volume flow rates, pump speed, and blood chemistry (including plasma free hemoglobin) were periodically recorded. In two animals, measurement of pressure head throughout the duration of the studies were made with flocked carotid lines and fluid filled LV catheters.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a first or second magnetic device or magneto coupling as discussed above, and does not specifically identify any control of the second magnetic device by the shelf mounted electronics. Defendants also fail to specifically identify control of the second magnetic device based on a fixed value. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

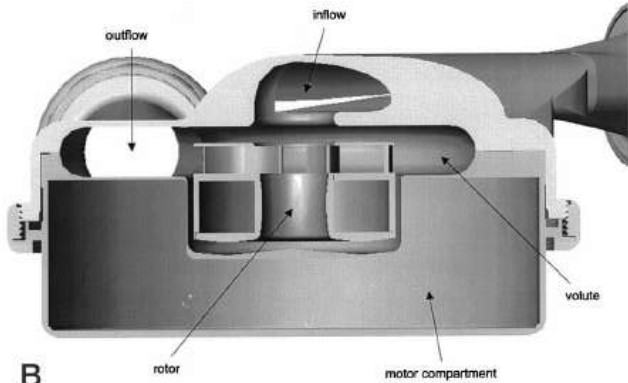
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	magneto coupling with the first magnetic device.	<p>Bourque 2001 at fig. 3.</p>  <p>HEARTMATE III</p> <p>Figure 3. HeartMate III LVAD implanted configuration. TETS, transcutaneous energy transmission system.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of</p>	

U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	
12	The system of claim 11, wherein the magnetically driven rotor includes a guide surface to produce centrifugal flow components.	<p>Bourque 2001 discloses "The system of claim 11, wherein the magnetically driven rotor includes a guide surface to produce centrifugal flow components." at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>[Bourque 2001 at page 401 ABT-MIR-00000024 A long-term, compact left ventricular assist device (LVAD), the HeartMate III, has been designed and fabricated, featuring a centrifugal pump with a magnetically levitated rotor.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 An opening in the shroud (<i>i.e.</i>, the cover across the top of the blades on the rotor) permits fluid leaving the inflow conduit to enter the impeller. This results in a backflow path from the trailing edges of the blades (where the pressure is relatively high), over the shroud, and back to the leading edges of the blades. By creating a similar opening in the lower half of the rotor, a second backflow path underneath the rotor results, eliminating what would have been an accumulation of stagnant blood there, and relieving the upward thrust load on the rotor.</p>	Defendants' bare citation in support fails to comply with LPR 2.3(b)(3) and does not specifically identify any centrifugal flow components or any guide surfaces that produce centrifugal flow components. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

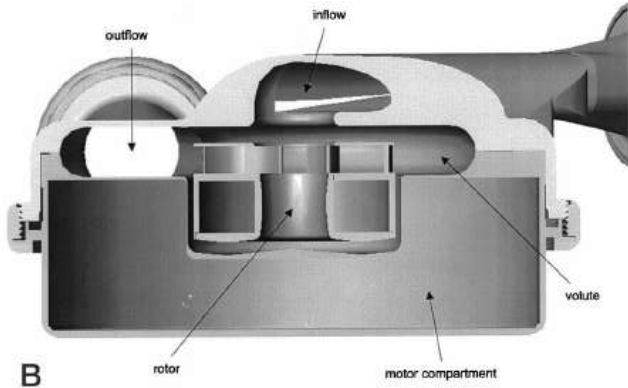
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
14 ¹	[14a] The system of claim 11,	Bourque 2001 discloses "The system of claim 11, wherein the one or more walls and the magnetically driven rotor define a gap separating the magnetically driven rotor from the one or more walls," at least under the	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not

¹ Miracor does not assert this claim in its LPR 2.2 Initial Infringement Contentions, but certain asserted claims depend from this claim.

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#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	wherein the one or more walls and the magnetically driven rotor define a gap separating the magnetically driven rotor from the one or more walls,	<p>apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 4</p>  <p>Figure 4. HeartMate III motor, drive, and levitation (control) in a single magnetic structure.</p> <p>Bourque 2001 at page 402-403 ABT-MIR-00000024 The HeartMate III motor includes drive and levitation in a single magnetic structure as shown in Figure 4. The rotor is passively magnetically levitated in the axial-translational and transverse-rotational degrees of freedom (Figure 5) and actively magnetically levitated in the remaining degrees of freedom.</p>	<p>specifically identify any walls or a gap defined between walls and the magnetically driven rotor. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

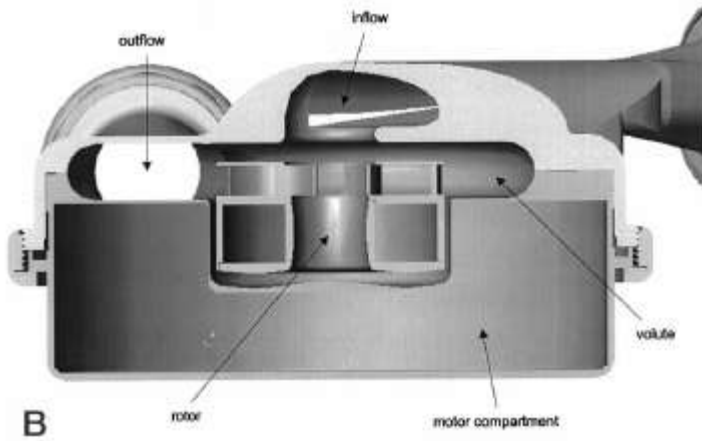
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
		<p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at page 401 ABT-MIR-00000024 The rotor is magnetically suspended, eliminating contact between moving parts and consequently extending wear life indefinitely. It is anticipated that this design will profoundly increase reliability.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[14b] the gap configured to be occupied by the blood	Bourque 2001 discloses "the gap configured to be occupied by the blood when the second magnetic device drives the rotation of the magnetically driven rotor." at least under the apparent construction and scope of the	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a second

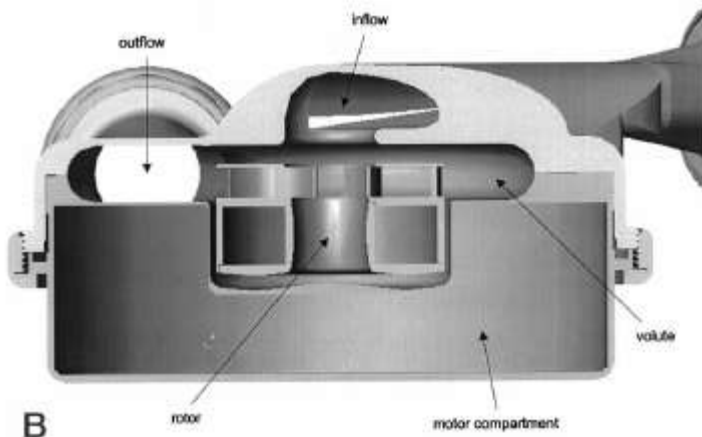
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	when the second magnetic device drives the rotation of the magnetically driven rotor.	<p>claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 By creating a similar opening in the lower half of the rotor, a second backflow path underneath the rotor results, eliminating what would have been an accumulation of stagnant blood there, and relieving the upward thrust load on the rotor. However, both of these backflows consume hydraulic power without contributing to physiologic perfusion. Thus, the clearances above and below the rotor were chosen to balance reduced hydraulic efficiency with sufficient washing of blood contacting surfaces... [T]he gaps permit up to 7X gravitational loads in any direction without contact between the rotor and housing.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	magnetic device or a gap "configured to be occupied by blood." Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.
16	The system of claim 14, wherein at least part of the gap extends along a first axis substantially	Bourque 2001 discloses "The system of claim 14, wherein at least part of the gap extends along a first axis substantially perpendicular to the inflow axis" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify the gap as recited above and does not specifically identify any gap that extends in the recited direction. Miracor may modify its

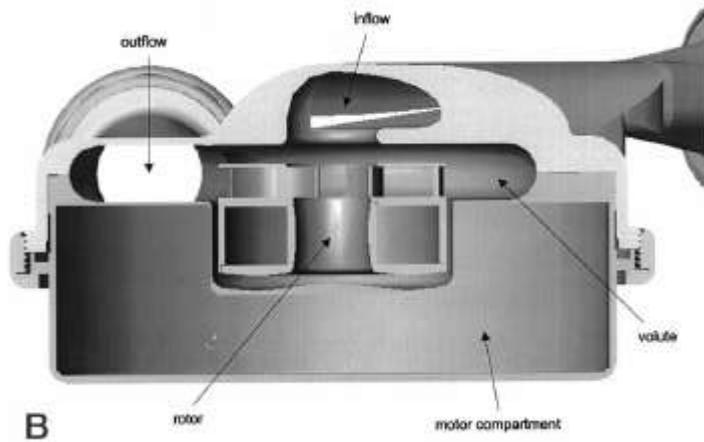
U.S. Patent No. 11,572,879			
#	Claim Element	Bourque 2001	Miracor's Response as to Whether the Element is Present in the Reference
	perpendicular to the inflow axis.	<p>Bourque 2001 at fig. 1B</p>  <p>Bourque 2001 at page 401 ABT-MIR-00000024 The rotor is magnetically suspended, eliminating contact between moving parts and consequently extending wear life indefinitely. It is anticipated that this design will profoundly increase reliability.</p> <p>Bourque 2001 at page 402 ABT-MIR-00000024 By creating a similar opening in the lower half of the rotor, a second backflow path underneath the rotor results, eliminating what would have been an accumulation of stagnant blood there, and relieving the upward thrust load on the rotor. However, both of these backflows consume hydraulic power without contributing to physiologic perfusion. Thus, the clearances above and below the rotor were chosen to balance reduced hydraulic efficiency with sufficient washing of blood contacting surfaces... [T]he gaps permit up to 7X gravitational loads in any direction without contact between the rotor and housing.</p>	<p>response to this claim element subject to further explanation or definition by Defendants.</p>

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		To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	
18 ²	[18a] The system of claim 11, wherein the chamber is a first chamber within which the magnetically driven rotor is positioned,	<p>Bourque 2001 discloses "The system of claim 11, wherein the chamber is a first chamber within which the magnetically driven rotor is positioned" at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at page 401 ABT-MIR-00000024 The HeartMate III pump...comprises...a lower housing that includes the lower half of the volute and a cavity for the rotor, in which the motor is enclosed.</p>	No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a chamber or a first chamber. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.

² Miracor does not assert this claim in its LPR 2.2 Initial Infringement Contentions, but certain asserted claims depend from this claim.

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		<p>Bourque 2001 at fig. 1B</p>  <p>The diagram is a cross-sectional view of a medical device, labeled 'B' at the bottom left. It shows a central rotor assembly within a housing. An 'inflow' port is at the top, and an 'outflow' port is on the left. A 'motor compartment' is at the bottom, and a 'valve' is on the right. The rotor is labeled 'rotor'.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.</p>	
	[18b] and the magnetic drive system is positioned within a second	<p>Bourque 2001 discloses “and the magnetic drive system is positioned within a second chamber sealed from the first chamber.” at least under the apparent construction and scope of the claims as set forth in Miracor's Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p>	<p>No. Defendants' bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a second chamber or a seal between a first chamber and a second</p>

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	chamber sealed from the first chamber.	<p>Bourque 2001 at fig. 1B</p>  <p>The diagram shows a cross-section of a device with a central rotor. An inflow port is at the top, and an outflow port is on the left. A motor compartment is at the bottom, and a valve is on the right. The rotor is labeled 'rotor' and the motor compartment is labeled 'motor compartment'.</p> <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior art references (e.g., Schob '618 Ex. D-5) identified in the cover pleading of Defendants' Initial Invalidity Contentions. For example, a person of ordinary skill in the art would know that if a magnet comes into contact with blood, it can adversely affect the blood so as to become toxic or lethal, or cause corrosion, and that therefore the magnet must be sealed from the blood. Further, a person of ordinary skill in the art would have been motivated to combine Bourque 2001 with one or more other references identified in the cover pleading of Defendants' Initial Invalidity Contentions (e.g., Schob '618 Ex. D-5) with a reasonable expectation of</p>	<p>chamber. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

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		success because each of these references contains familiar elements within the similar fields of endeavor to address similar known problems according to known methods which would yield predictable results.	
19	The system of claim 18, wherein the wall of the one or more walls separates the first chamber from the second chamber.	<p>Bourque 2001 discloses “The system of claim 18, wherein the wall of the one or more walls separates the first chamber from the second chamber” at least under the apparent construction and scope of the claims as set forth in Miracor’s Initial Infringement Contentions and to the extent the asserted claims are found to be not indefinite.</p> <p>Bourque 2001 at fig. 1B</p>  <p>To the extent it is found that Bourque 2001 does not expressly disclose this limitation, the limitation is inherent. And to the extent it is found that Bourque 2001 does not anticipate this claim, Bourque 2001 renders it obvious, standing alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with one or more other prior</p>	<p>No. Defendants’ bare citation in support fails to comply with LPR 2.3(b)(3), does not specifically identify a first chamber, a second chamber, or one or more walls. Accordingly, Defendants identify no wall that separates a first chamber from a second chamber. Miracor may modify its response to this claim element subject to further explanation or definition by Defendants.</p>

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		art references identified in the cover pleading of Defendants' Initial Invalidity Contentions.	